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Frontispiece Plate: THE PROSCRIBED ROYALIST.

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THE PROSCRIBED ROYALIST.

From the Picture by Sir I. E. Millais, P.R.A.

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DRIFTWOOD.

BY MARY E. PALGRAVE.



HER OUTSTRETCHED HAND GAVE A KINDLY WELCOMF.

CHAPTER XIII,-" MARIBEL GREEN."

"How do you do, Mr. Graham?" I've got some good news!—A recruit for our committee, young, and active, and idle, with a good head on her shoulders, I'm told, and a little money in her pocket—now could anything be better for us? And I got her myself, with my own bow and spear!"

It was an extraordinarily vivacious voice to come from its frail owner, who lay flat and still on a sofa in the darkest corner of the room, and did not move when her visitor was announced. Her beautiful eyes and eager smile were like a gleam of sunshine, and her outstretched hand gave a kindly welcome. Oliver Graham, who had entered with a rather sulky, protesting air—as of one who has much bigger affairs to attend to, and only puts his hand to this one because somebody has made him—began to thaw and lighten under it at once.

"Did you really capture her yourself? I congratulate you! She sounds first rate."

He seated himself near the sofa and glanced round the room. It was a very pretty room, full of gay chintzes and white paint and rows of books, and gave those who entered it a shock of surprise, for it was not what one would expect to find in a little street in Kennington,

and in a house of which the outside looked neither better nor worse than its meagre, smokebegrimed neighbours.

"Yes, it's all ready," laughed his hostess, in response to his glance. "Doesn't it look like business?"

Eight or ten chairs were drawn up in a prim half-circle, and a small table, furnished with pen, ink, and paper, was placed beside Mary Bruton's sofa.

"It looks most impressive," Oliver agreed. "It won't be *your* fault if we don't get through a great deal of work."

His neighbour gave a sigh of half-laughing impatience, and glanced at the clock. "Yes, we might go ahead, if people could only be punctual! We have got the date of the opening to decide to-day, and a list to make of great guns to be asked to fire off, and a quantity besides to settle. If the Committee cared half as much about it as I do, they would manage to get here to time. But people are so slack!"

"At least that can't be said of you, Miss Bruton! I can't say how plucky I think you are to take the burden of a big affair like this upon your shoulders. I wouldn't do it—no, not if I were paid for it! It is enough to daunt a Hercules!"

"On, one must do something. I shall get through it well enough," responded his companion, in a tone of such quiet assurance as to sound almost like indifference. Yet few could have looked less fit than this fragile creature to undertake the burden of organising and carrying through the heavy and responsible task which

lay before her.

The Miss Brutons were two sisters—"ladies of independent means," as the phrase goeswhom Oliver Graham had known since the early days of his London life. Honora Bruton, the elder of the two, was a remarkably active, vigorous-minded woman, whose life was devoted to the work of a Poor Law Guardian and other labours in the service of the poor. In her bodily powers she was a strong contrast to her sister Mary, who had been an invalid from childhood, had to spend most of her time on her back, and was often shut up in her room and her bed for weeks together. But, in her mental capacity, Mary Bruton was fully as vigorous as her sister; in fact, those who knew them both were inclined to say that the younger Miss Bruton had the more brilliant and original mind of the two. To those who had the privilege of her friendship she was one of the most sympathetic of friends and among the wisest and most stimulating of living souls.

It was quite by chance that an acquaintance had sprung up between Oliver Graham and the Miss Brutons, but this chance acquaintance had ripened into a friendship between him and the younger of the two sisters. It seemed rather strange that one to whom the service of others was as the breath of her nostrils, and whose enthusiasm for all noble and disinterested undertakings was as the air she breathed, should have cared to make friends with another whose sole aim in life was, apparently, to push his own way forward, and whose conception of the claims of his fellows upon his powers of service was as different from hers as well could be. The poor were just "the poor" to Graham, and nothing more. They might have been Hottentots for all he knew and cared about their needs and ways. But there was a pluck and honesty about young Graham and a definiteness of purpose which Mary Bruton had the skill to recognise, and for which she liked him; and her fine perception told her that it was not from lack of the power to care for others that he was so indifferent-rather that his nature was not yet awake to hear the soulstirring voice.

In the two years of their acquaintance Graham had awakened at least far enough to be conscious that there were people—clever people, too, and other than the clergy, whose business it was—who thought the service of the poor a work worthy of their highest capabilities, gave up their entire selves to it, and resigned, for it, the chance of being distinguished or wealthy. He began to show faint signs of interest in Mary's Sunday class of big lads, and in Honora's efforts to get work for the more hopeful cases from the casual ward.

Taking an interest in other people's work is, however, a long way short of doing work one's self! It had been with a sense of making a bold move that Mary Bruton had unfolded to Graham her scheme for organising a Loan Exhibition of Pictures for Kennington and Battersea, and asked him to give a helping hand to the enterprise by joining the committee.

Oliver, it must be confessed, was at the outset by no means gracious. Mary's keen sense of humour was tickled by his air—at once offended and dismayed. "Why, really, I know nothing whatever about pictures, Miss Bruton," he protested. "I can't tell a good picture from a bad one; and I haven't the ghost of an idea what kind of Art the—the working classes have a taste for. And besides I haven't time to help you. I'm hard at work from ten in the morning to seven at night, and it takes all my wits and time to master the details of my business. You people of leisure have no notion how hard a poor fellow—"

"Ye gentlemen of England, Who sit at home at ease,"

quoted his friend, with a comical look. "I know you think, Mr. Graham, that we do all the 'lazeing' and you do all the working."

the 'lazeing' and you do all the working."

"No, indeed I don't," Oliver protested.

"Nobody who knows your sister, or you either, could help feeling that you work with the best of us. But when a man has only himself to depend upon, and his own way to make in the world, he feels his first duty is to himself, and that he can't be expected to give up time or energy to charitable work. That must be left to the people who have no such claims on them,

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or whose way is already made."

Oliver thought his argument indisputable; but Mary Bruton had a wonderful power of carrying a point on which she had set her heart. In spite of his conviction that "charitable work" was out of the question for him, the Loan Exhibition did presently see him a member of its committee; and he attended the meetings with fair regularity, at some sacrifice of time and trouble. He subscribed a guinea, too, to the funds, which—Mary Bruton's instinct told her—was an even greater effort on his part; and, altogether, his friend had cause to be pleased with his progress.

pleased with his progress.

"He's getting on," she told Honora. "He is beginning to see. I don't despair, even, of beholding him a Christian Socialist before I

die!"

She beamed upon him to-day, for his punctuality in appearing. "I notice that the less people are tied to time the more they run it close in getting from one place to another," she remarked. "You know it takes half an hour to get to Kennington from most parts of the world, and don't try to do it in a quarter! Hark, there's the bell! Probably it is our new recruit. She will think us a poor show in the way of a committee! You and I must appear simply

glowing with zeal, Mr. Graham, for fear she should be hopelessly damped at the outset."

"I'll try and show myself as zealous as I can. By the way, what is her name?"

"The effort will do you good," laughed Mary. "Oh, her name—let me see, it is Marston, I believe—Yes, here's her note—'Katharine Marston'—I only hope she's as pleasing as her signature!"

The door opened and Oliver gave a little jump; for there, behind the servant who announced her, was his nameless acquaintance of Mrs. Langham's ball. Several months had passed since then, and the dress and surroundings were totally different; still Oliver recognised, in a moment, the fair face and the graceful head, with its quick turns this way and that, which had so taken his fancy that evening last May.

He had looked for her many times and in many places since, but had had no success in his seeking. And now, when he was dreaming of nought beyond getting through a rather irksome and uncongenial duty, behold, here she was—a clear case of the "angel un-

awares"!

His angel at the present moment looked very shy and rather alarmed, and was so much occupied in speaking to Miss Bruton and receiving a copy of the agenda of the meeting, that she seemed unconscious of the presence of anyone besides. Even when introduced by their hostess, she barely glanced in Graham's direction.

Another ring and the trampling of feet on the stairs gave promise of the appearance en masse of the rest of the committee; and very soon several plainly dressed young women with capable faces, a shrewd-looking Board School master, and two or three local curates, made their appearance, hurrying in, one after another, with the guilty air of people conscious of being late. The little drawing-room was full to overflowing; everybody was talking at once; and news of pictures promised or hoped for, of subscriptions secured, and of "watchers" who had undertaken to come and act showman in the rooms for so many hours each day, flew about with bewildering rapidity. Mary Bruton had risen from her sofa and was dealing out tea-the liveliest and keenest of all. When the moment for business arrived she would marshal her forces and reduce them to order with a will; but while they were having their tea she let them chatter, and joined in herself, with eager amusement and enjoyment of every detail. There was something so very human about Mary Bruton. Apart and alone though her life was, of necessity, mostly lived, no one took a livelier interest in the freaks and foibles of her kind.

The new recruit sat where she had been placed, looking more and more shy and bewildered. Her dress was as faultless as when Oliver last saw her, and her coils of flaxen hair equally smooth and shining; she looked, moreover, nearly as nervous and as much out of

her element as she did on that memorable occasion, and started visibly when Graham's voice made itself heard behind her.

"I think we have met before, Miss Marston,

have we not?"

Katharine Marston looked up. "Have we?" she questioned doubtfully. Then her face brightened—"Oh yes; so we have. It was that night when I had been landed at the wrong house. You were good enough to show me my mistake and see me safe to Lady Carthew's, and I was very much obliged to you."

A chair stood obligingly empty close to Miss Marston's. Oliver took it and sat down. They were in a corner, out of the range of Miss Bruton's eyes; it might be possible to get an occasional scrap of talk in the pauses of this

tiresome committee!

"I thought perhaps I should have met you again somewhere last season. I looked for you at every dance and other function I went to,

but I never came across you."
"That was not surprising, for,

"That was not surprising, for, as it happened, I hardly went anywhere after that evening; the aunt I live with fell ill, and I had no one to take me out. I lost a number of parties on that account."

"Ah, that was the reason, no doubt, why I

did not meet you anywhere."

But at this moment a sharp rapping sound made itself heard. The tea-cups had been disposed of and the committee had settled itself for business. Miss Bruton had taken her seat at the table of office, on which she had just rapped briskly with her pencil. She was looking, with a smile, in the direction of the two members who were oblivious of their duties and talking to each other instead of attending to work.

Katharine Marston snatched up her agenda paper and tried not to know that she was blushing; Graham sat upright and endeavoured to look as if he were thinking of nothing but the business in hand. But at the first pause he leant forward again and said, in a low voice, "Are you fond of going out, or do you think it a nuisance, as so many girls nowadays seem

to do?"

Katharine looked timidly in the direction of the chair, but seeing its occupant busy over some papers, she plucked up courage to reply. "Oh I like parties very much. I don't think them at all a bore—quite the contrary! I suppose it is because I have had so few. Till last winter I had lived, ever since I was a small child, in the sleepiest country place you can imagine, with my grandmother, who was a very old lady and very infirm. We never went anywhere, or saw anybody."

"It must have been rather a dull life for you?" suggested Graham sympathetically.

His neighbour nodded and smiled. "Dull?—I should think it was," she murmured emphatically. "Of course I was fond of Granny, and she gave me a home when my parents had died in India and I had nowhere to go; but sometimes I did rather long to have some

amusement and do some of the things that

other girls do."

"Yes, I am sure you did—it wasn't a natural life for a girl," replied Oliver eagerly. He was longing to draw her out and encourage her to go on talking and telling him about herself. It was like a sudden splash of cold water to hear that horrid pencil rapping again and be pulled up abruptly by an imperious look from Miss Bruton.

At the first possible opportunity he returned to the charge, with the most leading remark that occurred to him. "I think you said you were living in London now? It must be a great

change for you."

"Yes, that it is! My grandmother died, a year ago; and after her death I came to live with an aunt and uncle on the north side of the Park. I make my home with them, but I go away a good deal. They let me do just as I like. After being so much shut up all my life, they understand that I want to enjoy myself and have a good time. It is only natural, isn't it?"

There it was, the same speech that was so often on Marjory's lips; the same idea that she was so fond of expressing, in almost the same words! "I want to enjoy myself; I have a right to do so." But, somehow, the words. struck a different chord when uttered in Katharine Marston's gentle, even, precise little voice, and coming from her pretty, demure lips. The personality of the speaker seemed to rob them of all lawlessness and audacity, and make them merely the expression of a wholly legitimate desire. The resemblance between her wishes and Maidie's never even occurred to Oliver. He merely felt what a shame it was that this charming girl should have had such a dull life; and what a lucky fellow he should be to whom-now that her circumstances had changed-fell the privilege of helping to give her a good time.

At the next opening for conversation he leant towards her and said, with a glance round the room, "Is this your ideal of amusement,

Katharine Marston laughed outright. indeed!"-with an emphatic shake of the head-"I was let in for this, through a friend of mine, who thinks I am shockingly idle and ought to do something for the good of others. It's all very well for people who are—well, older and wiser, we'll say—but I don't think I'm called upon to plunge into it at present. I think I ought to have some fun, and do some of the things that other girls do, while I'm still young enough to enjoy it all. Don't you agree with me?"

"Oh, entirely." Graham's eyes twinkled with amusement at her outspokenness; but there was no mistaking the whole-heartedness of his sympathy. "What kind of things do you want

to do?" he demanded.

"Oh, to have plenty of dances and go to Henley and-and to Hurlingham, and-

Here Miss Bruton's voice, pointedly asking a question of Mr. Graham, called them to order once more. It was not till the committee was breaking up that Oliver found a chance to say in a voice meant for his neighbour only-

"I'm afraid, then, you don't mean to throw much of your energy into this picture exhibition? Shan't I meet-will you not join the committee after all? Miss Bruton will be terribly dis-appointed if she doesn't secure your help. And -and we shall all feel very low if you desert

Graham's eyes said even more than his tongue. His pretty neighbour turned a little pink, and there was a certain self-consciousness visible as she answered, laughing, "I don't think the committee would cry their eyes out at losing me. And Miss Bruton has not an idea what an incapable she has caught. really think the kindest thing I can do is to take myself off, before they begin wasting their You see, energies on licking me into shape. I've had absolutely no experience.'

Graham was eager in his assurances that experience was totally unnecessary—that the arranging of free picture exhibitions was the most easy, amusing, and altogether delectable occupation ever invented, and that the present one could be neither begun, continued, nor ended

without Miss Marston's assistance.

Pretty Katharine laughed, but would only make a vague and non-committal answer. Graham followed her with a wistful face and hovered anxiously round as she made her adieux to Miss Bruton; but the expression of his countenance lightened when the latter said, in her bright, decided fashion, "We meet again this day week-I may count on you, may I not?" -and when Katharine Marston's demure answer came, "Yes, if you think I shall be of any use."

Oliver Graham walked home, after the committee, with his head full of pleasant thoughts. A mental picture of Katharine Marston's pretty face-with its delicate colouring and regular features; and the short upper lip and vivid grey eyes giving vigour and individuality to the whole-danced before him, and the echo of her clear, pleasant voice made music in his ears. The walk from Kennington to Pimlico, despite the keen wind and cheerless uniformity of a March twilight, was nothing but a joy; he even took a turn round Eccleston Square, before proceeding to his lodgings, in order to prolong the time of vaguely happy visions.

There was, however, a rude awakening waiting for him on his sitting-room table. lay there in the shape of a letter from Marjory,

with a newspaper cutting enclosed.

"Dear Noll," the letter said, "It is so long since we met that you must not be surprised at hearing something about me that will be news to you. Three months is a long time, you know -long enough for a good deal to happen in. And though I daresay you haven't noticed it, it is three months, very nearly, since that evening when you came round to my place and tried to interfere with my going to the play. And I suppose you've been waiting till I chose to say I was sorry before taking any more notice of me? I'm afraid you will have to wait a long

time for that, Noll-though I will say I'm sorry

I vexed you, if that's of any use.

"I suppose you know that, since I gave up the School of Art, I've been thinking seriously about going on the stage? I should like to be independent, you know, Noll, if I could be so without too much drudgery; for (though you'll hardly believe it) I do sometimes think it is rather a shame to take your money when I'm not going on precisely in the way you would like.

"Well, not to bore you, or myself, with a long story; the fact is that I've found out (before it was too late, happily, though I've wasted a terrible lot of time and money going to that scamp of a Beresford, who undertook to make a first-class actress of me!) that I'm not good enough, and never shall be, for the serious stage. If I could have begun at sixteen, when I was eating my heart out at the Wyke, and playing spoilt child to Mr. Howson and the village, it might have been different; but it's no use crying over that now. So the long and the short of it is, that I have been training as hard as I knew how for another branch of the profession (working fifteen hours a day, Nollwould you ever have believed it of idle me?); and to-morrow night I'm to make my debut as music-hall dancer and comic singer. See this cutting from the 'Theatrical World'! You may guess I've a friend on the staff, or I should never have got such a flourish of trumpets to lead off with!

"What will you say to me, I wonder? You will be shocked and scandalised, I've no doubt, at my doing such a thing, but I believe your first thought will be, not about me but about the old name. You will shriek at the bare idea of its being flaunted before the world on a music-hall poster! But don't be afraid, Noll. It has never brought me any luck, and I've no great cause to bless it (and shall no doubt change it one of these days); still I'm not going to disgrace it or hurt your family pride. Look at the cutting, and you will see that I am Maribel Green to my new world, and it's as Maribel Green that I shall win glory and renown. Rather a neat thing in the way of a name, I flatter myself; but it wasn't of my choosing. It was Aurora Dangerfield's idea. The whole party of them, and some others of my friends, are coming to see me make my first appearance to-morrow night. They have taken a couple of boxes, like trumps as they are! It's a blessing that there are people who don't see the force of cutting a poor girl adrift because she is starting in rather an unus-well, a queer line, if you will!

"Of course, Noll, you won't come and see me dance, and give me your blessing? No such luck for me!--and I don't know why I am so silly as to ask, only somehow I've a hankering to feel that a bit of my own flesh and blood is there for the first time, to hearten me up a little and to—well, give me ballast don't you know? To strengthen me against myself! But there, you won't understand; and I'm not forgetting that I have chosen my

own line and must 'dree my weir,' as Sally would call it. But I should think it very generous of you, Oliver, and feel very proud if you were to come. I don't expect it, though, for a moment.

" MAIDIE."

There was a postscript scribbled in pencil, which said, "Send me the cutting back; there's a good boy. You won't set any store by it, and it will do to make a beginning for my album of critiques of the celebrated Maribel Green!"

But Oliver crumpled up the bit of newspaper savagely, and flung it into the heart of the fire.

CHAPTER XIV .- CUTTING THE CABLE.

VITH his sister's letter in his hand, Oliver went round to Eccleston Square. Sir Roger was dining at his club, and Aunt Matilda was spending the evening alone, dozing over a missionary magazine by the drawing-room fire.

Oliver's first impulse was to hand her the letter, and bid her read it through; but the instinct of hiding his sister's follies from view, which was always in him, though recent events had ridden it hard, kept him from this unmerciful course. He thrust the scrawled sheets into his pocket, and contented himself with describing, in very plain language, the step Maidie was about to take.

Aunt Matilda was to the full as much scandalised as Oliver expected her to be. In fact, she would hardly believe her ears. She held up her hands in dismay, uttering inarticulate

gurgles of protest and horror.

"My dear Oliver," she gasped, when speech returned to her, "it's impossible quite impossible! A relative of Sir Roger's-a young lady who has stayed in this house and been seen in the streets in my company—to have taken to such courses? It can't be, my dear boy! You must be mistaken! Such a thing is perfectly incredible."

"I am afraid there is no mistake about it," growled Oliver. "I've got it down in black and white, in her own writing. She's making her début at this very minute, in some low place of amusement I never even heard of."

"Sir Roger's-first-cousin-once removed, a music-hall dancer? It's perfectly monstrous!" Lady Martinford's deep voice was at its deepest. She was pallid with indignation.

"Well, I can't help it, Aunt Matilda! I'm

sorry enough."
"I always knew that wretched girl would bring disgrace on the family. My instinct warned me how it would be before I ever set eyes on her. I told my husband that a girl who had scrambled up anyhow couldn't turn out well—she was bound to go to the bad sooner or later. I did my best-

"Aunt Matilda," struck in Oliver, with a slight change of tone, "I can't let-you have no right to say that. There are plenty of respectable girls in the—ahem, the profession Maidie has chosen. There is no reason why she should not be one of the steady ones. It is bad enough at the best, so you really must not make her out worse than she is."

"Really, Oliver, I don't see that you can say much in her favour," retorted Lady Martinford, more angry than ever. "A girl who can turn her back on her friends as Marjory has done and throw away the chances she has had is "An invalid widow with two elderly daughters, living in the remote parts of St. John's Wood and seeing nobody but a few other old ladies! My dear Aunt Matilda, how long do you think they and Maidie could have endured each other?" protested Oliver. "Don't we all know, from experience, how hopeless it is trying to make her do anything? If anyone could have succeeded, it would surely have been you!"



AUNT MATILDA WAS TO THE FULL AS MUCH SCANDALISED AS OLIVER EXPECTED HER TO BE,

nothing less than wicked, in my estimation. I am sorry you are so lax in your views. I always did think you lamentably weak where Marjory was concerned. Any brother with a proper sense of what was fitting for a young sister would have insisted on her going to live with the Carr-Browns, or that other nice family I gave you the address of. But you have let her take her own way in everything. And now we see the result!"

"Well, then, if the boarding plan was out of the question, you ought to have taken Marjory to live with you, as you must remember I suggested." Lady Martinford found it easier to blame some one else than to acknowledge that she herself had been the first to fail in the task of controlling Marjory.

Oliver reddened and bit his lip. Was it some inward disquiet that made him reply so angrily, "Don't you remember, Aunt Matilda, that I gave my reasons why that plan was as much out of the question as the other? I told you it could not be; and there was an end of it. What is the good of going over all that old ground again?"

"Because, Oliver, I wish to make it clear that I had no responsibility in the matter," Martinford majestically. Lady "When your sister quarrelled with my just rules and suitable restraints and-well, ran away, there's no other word for it !- instead of bringing her back to me, you aided and abetted her disobedience. That wild plan for her to live in independent lodgings was entirely of your making. Have the goodness to remember that."
"I do, fully; but what possible alternative

had I? It seemed the only workable plan."

"You mean it was the only plan that happened to please Marjory! But, at any rate, when she took to abusing her liberty in the outrageous way she has done lately, anybody in his senses would have stopped her allowance. My maid has a friend who is sister-in-law to Marjory's landlady, and she tells Thompson of the goings on in Limerick Street-such scandalously late hours every night-Sundays no less! and young men constantly in and out; and champagne suppers; and such a racket kept up that the other lodgers have threatened to leave; and I don't know what besides! My hair stands on end at the tales Thompson brings me! And you told me distinctly that the money was to depend upon her conducting herself properly."

"Yes, I know. Again and again I thought of stopping it, and even threatened that I would do so; but she has had nothing else to depend upon, and no means of earning a livelihood. I could not face the responsibility of taking it away, and so-well, so perhaps driving her to-something worse. She would be sure to say I was to blame for—anything that happened. One did not know which evil was the greater. It is a miserable position." Oliver leant his arms on the mantelpiece and turned his dis-

tressful face from view.

Aunt Matilda uttered an enigmatic sound, which might be interpreted to mean that, if Maidie intended to go to the bad, she would need no excuse for so doing. After a moment she resumed pitilessly, "But I conclude that you mean now to refuse to support her any

longer?"

"Yes, I do. It would be like approving of the trade she has taken up, to go on with the allowance. And, on her own showing, she will henceforth be carning her own living.

"Certainly. I am glad, Oliver, you see it in

a sensible light."

"It is the obvious light, I suppose," returned the young man impatiently. Aunt Matilda was very trying. Still, she was the only person to whom he could appeal for the sort of moral backing which, at this difficult juncture, even his independent nature craved. "I don't believe," he broke out, after a moment's pause—" I don't believe anyone was ever saddled with such a burden—a responsibility which it is impossible either to fulfil or get rid of! It's too hard on a fellow! My father simply made Maidie utterly unmanageable, and then left me the sole responsibility of looking after her." Oliver's voice was hard and bitter with the sense of injury. He kicked savagely at the fire with the

toe of his boot.

Lady Martinford looked up briskly. "Responsibility? My dear Oliver, that is the very point I was coming to. You really must give up thinking that you are responsible for your sister's actions or their consequences. In the first place she is turned twenty-one, so that neither you nor anyone else has further legal responsibility for her. In the second place she has had the best of chances of doing well, and has thrown them all to the winds. Granted she was shockingly brought up by your father, still, all that might have been counterbalanced by the advantages she had here-godly training, both in precept and example, and every care for her welfare, and the prospect of unexceptionable society so soon as she was fitted to take her place in our circle. No girl could have had more encouragement or a better opportunity of growing up a Christian gentlewoman. I appeal

to you, Oliver—was it not so?"
"Ye—es," muttered Oliver reluctantly. It was true, and yet --- But this was neither the time, nor was he the person, to disturb Lady Martinford's serene self-satisfaction; so he assented as cordially as he might. His relative

went on triumphantly:

"And how did she respond to all those good influences? She was like the deaf adder of whom the Psalmist speaks. She turned her back on me, her adopted aunt, on her adopted uncle, on her good home and all its Christian advantages, and went off like a lost sheep into the wilderness. Have I any further responsibility in the matter?"

"Did I ever say you had?" muttered Oliver

crossly, in a half-aside.

"And then think of all you have done for your sister, and the way you have denied yourself to support her in idleness. If she wilfully throws all your kindness away, your responsibility also ceases. She has made her own bed, in spite of all you could do and say, and she must lie on it.'

Oliver was silent, and wondered whether his responsibility did cease. It would be a grand way of cutting the Gordian knot to accept Aunt Matilda as his Pope in the matter and let her absolve him from an unpleasant duty; but his native independence and clear-sightedness stood in the way. He could not make up his mind, there and then, to cast Maidie adrift.

"Yes," pursued Lady Martinford, her deep voice booming out with increasing volume as she approached her climax, "there can be no question that we have both done our dutyseverally and together—by your sister Marjory: done our duty and given her every opportunity that a young girl need expect or wish for. There is a point, my dear nephew, believe me, at which human responsibility ceases. You and

I have reached that point. Henceforth Marjory must take the conduct of her own life upon herself. I wash my hands of her entirely, and

so do you."

"No, no, Aunt Matilda, I can't do that. She is still my sister, you must recollect. I shall not, of course, feel bound to go and see her—or countenance her doings in any way; but when I write I shall tell her that she may come and see me, if she chooses, from time to time, and may let me know if she is in trouble or difficulty. I can't cut her utterly adrift, without having—absolute reason to do so. It is little enough I shall see of her, probably."

"Oliver, I wonder at you! But you are as weak as ever, I see. Of course, I cannot control your actions. I can only give you my advice, speaking in your own interests, and hope your good sense may guide you to take it as it is meant. My course, at any rate, is clear."

"I wish to goodness I could wash my hands of her!" cried Oliver bitterly. Some unconscious chain of thought had flashed the vision of Miss Bruton's drawing-room before his mind's eye and that pretty fair face of the new "recruit" as the centre of it. It was so impossible to think of Maidie and her side by side. The two were such poles asunder-now and for ever hopelessly incompatible. A man would have to choose between them-if ever the opportunity of choice were his! But then he stopped, suddenly ashamed of his own words. A wish such as he had just breathed, floating unuttered in the mind was one thing; crystallised into bald words, it was another and a very ugly one. "I suppose I ought not to say that; but it really is hard on a man"-he continued, half apologetically-"to have to go about among his friends and acquaintances, labelled as the brother of a music-hall dancer and singer who calls herself Maribel Green. It is not as if one could even say she had gone on the stage! In fact, one may as well give up society at once. I shall go home and decline all my invitations."

"My dear boy, you must do nothing of the sort. You are getting on so well, it would injure your prospects in every way to give up going out. Now that you are to become a partner, you must set to work to find a charming girl with a nice little fortune; and when you have found her, you must take a house in an eligible quarter, and—there you are, fairly launched! You must not let that wretched Marjory spoil your prospects as well as her own. It is not to be thought of for a moment!"

"I should like to know what 'charming girl' will look at me with such a sister-in-law as part of the bargain? Girls think a lot about a fellow's womankind," growled Oliver.
"What need she know about the matter?"

"What need she know about the matter?" cried Lady Martinford, with a flourish of the hand as if sweeping away a cobweb or some equally flimsy obstacle. "Take my advice, Oliver, and hold your tongue about family affairs; they are no one's business but your own. You may rest assured that my lips will be sealed, and I will take care that Sir Roger's are

sealed too. You may depend upon it that we shall never breathe a word upon the subject. And if you will but be equally reticent—as, it seems to me, in common justice to yourself, if not to us, you ought to be—who in the world need ever know that Maribel Green is your sister?"

Oliver could have laughed, if he had not been so miserable, at this bold stroke of Aunt Matilda's. There was a touch of genius about it. It was probably true enough, what she said. His friend Mary Bruton was the only person to whom he had ever talked confidentially about his sister; and, no doubt, if he told her the state of the case she would agree to keep his secret—in the event, that was, of his deciding that it should be a secret.

But Oliver Graham was not one to come to a conclusion in a hurry. He told Lady Martinford he must think it over, and soon after took his leave and went home, pondering the situation and trying to define the terms of the letter he must write to Marjory. One factor in the situation, if only one, was clear. No one would ever glean from Aunt Matilda's lips that her adopted niece, Marjory Graham, and Maribel Green, the dancer, were one and the same person. And she would take good care that no one ever learnt it from her husband either.

CHAPTER XV.-44 DOES KATHARINE KNOW?"

I EXT morning, on his way to the city, Oliver posted his letter to Limerick Street. It was a very short letter, merely saying that, since Marjory had chosen to take a step which she must know would be dead against his taste and feelings, she must not be surprised if the allowance which he had hitherto made her ceased after the ensuing quarter. That, under the circumstances, she must see it was out of the question for him to go on coming to see her, but that, if she liked to visit him at his lodgings, she might do so, in an evening, when he was alone. And that if, at any time, she were in distress or difficulty, she might let him know. He was sorry he could not return her the newspaper cutting, as he had destroyed it.-It was a cold, stiff letter, such as one stranger might have written to another. But at least there was no ambiguity about it. Maidie would know what, in the future, she might expect from her brother.

It gave Oliver a sort of electric shock when, on returning from the City the same evening, he saw another letter, addressed in that familiar careless and yet fanciful hand, awaiting him. He noticed, as he opened it, that the post-mark

was a different one.

"Folks say it was a success last night," ran the few lines, scribbled in red chalk—Maidie had a passion for colour under all conditions, and a standing quarrel with ink for being black!—"and that I made a regular hit, and shall do very well if I study hard; but I'm sure I don't know if I shall persevere. Why was I born without any staying power? It's not fair that you should have all the grit! I looked about for you, Noll; somehow I couldn't help hoping you'd be there. Very foolish of me! But you are not going quite to cut me, are you, Noll? Send me a line, that I may know the conditions. I won't come to look you up unless you let me know that I may. By the way, I've changed my diggings, so as to be nearer my work. And it's cheaper too. Sally likes it better, because there's more fresh air, and it's a mile or two nearer Yorkshire! So write to me here.'

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The letter was dated from a street in that bracing and still comparatively suburban region of North London called Upper Clapton. His letter, then, of the morning, would not have reached her yet. It might still be lying at Limerick Street. For a moment Oliver half wished to try and recall it and send a more kindly one in its place. But on second thoughts, he decided that it was best as it was. It was time Maidie understood that her actions must entail their consequences, like other people's; and that letter said so plainly. As for expecting him to go and see her dance and sing at a second-rate music hall, as if she were a distinguished actress on a West End stage-it was

preposterous, nothing less!

A beautiful Sunday afternoon in May found Oliver Graham in Mary Bruton's drawing-room in Kennington. A flood of sun was streaming into the room, making it look brighter than ever; but the corner where Mary's sofa stood was screened and shadowed, and the air of the room was hot and oppressive by contrast with the fresh bright atmosphere without. Mary herself was lying on her back, looking stiller and more apart than ever; and the touch of the hand held out to her visitor gave him a throb of pity for its weakness and fragility. A sharp attack of illness had, during the last few weeks, laid her completely aside, and though, before it seized her, her plans had been so well laid and her workers so admirably drilled that the organising of the picture exhibition had gone on, despite her absence, smoothly and well, this term of imprisonment had tried even her courageous spirit, and depressed a mind even so sanguine and elastic as her own.

No one knew how keen had been the disappointment, to Mary, of not seeing the pictures installed in their places, and of having to miss the opening ceremony, with its pleasant stir and interested spectators, and the speeches of the celebrated artist who had come to declare the exhibition open and of the silver-tongued Bishop who was to thank him for doing so. She was longing to hear an account of it all, and eagerly welcomed Graham's entrance.

"Ah, this is good of you! You have come to tell me about yesterday. How did it all go off? Every bit of me was there except my

body, and that, you see, lay here."

A free mind and ready sympathy might have detected the wistfulness in the voice and the courageous struggle for cheerfulness in the fragile, eager face. But Graham, as it happened, had less even than usual of those blessed qualities at command. He was hugely occupied in his own affairs; and though he had made his way to Kennington partly, at any rate, as a friend should, to tell his friend of the successful starting of her enterprise, the topic that was uppermost in his mind was one entirely personal to himself. Art for other people is all very well in its way; but its interest fades and wanes when compared with love for another person!

In deference to his hostess's eager request Graham set himself to give an account of the speeches; but it cost him a strong effort to recall even the main drift of Professor Hdiscourse, and the résumé he furnished was so bald and scanty that his quick-sighted questioner soon perceived how little interested he

"What is the matter with you, Mr. Graham? Did it bore you so much? I thought you really cared that our working people, on this side the water, should have a chance of en-

joying some good art?"
"Oh, yes, I do care; on my honour I do. But-but there's something I care more about, as it happens! I'm sorry to be such a bad Graham's shy look and nervous laugh, and the way his sentences came tumbling out, told his auditor that there was something in the wind.

"Well?" she said, "what is it?" Her face was half amused, but wholly sympathetic. No one could turn more instantly and wholeheartedly from her own interests to those of

others than Mary Bruton.

"It is a dead secret-no one is to know anything about it at present; but I felt certain, the moment I got into the room, that it would come out to you," confessed Oliver, laughing. His face had lighted up in response to the kindly smile meeting him. And then he told her—with the usual "pomp and circumstance" of young men in a like condition-that he was the luckiest man in the world, for the most charming of girls had just promised to be his wife, and her name was Katharine Marston.

Graham's news did not, perhaps, take his iditor wholly by surprise. The young man's auditor wholly by surprise. zeal about the picture exhibition had become a different thing since the day when Miss Marston joined the band of its helpers; since then he had never once missed a committee, and his readiness to give any help in his power

had grown surprisingly hearty.

Whether there was any like attraction on the other side, Mary Bruton had not had time to discover before her attack of bronchitis began and she had been imprisoned in her room. She only knew that the new recruit had proved herself capable and persevering, and had given effective and willing help. Well, -it was a delightful side issue of this bit of work, which had interested herself so keenly, that two of its promoters should be finding their life's happiness by the wayside when engaged upon it.

Her sympathy and pleasure were so genuine that Oliver's slower, colder nature was quickened to unusual responsiveness. During that afternoon's talk he poured himself out more freely, and showed more of his inner self—of his hopes and aims and aspirations—than he had ever revealed to anybody before. And Mary Bruton lay on her sofa, looking and listening, and putting in, now and then, a quiet word by way of response and encouragement—the very embodiment of sympathy.

People in love are proverbially self-absorbed, and our friend Graham was very much in love, with all their keenness, there was never anything petty or ungenerous about her criticisms. She lifted her face towards Graham, as he stood beside her sofa, with a look of piercing yet kindly scrutiny in her beautiful eyes, and demanded suddenly—

"Does she know about your sister, Mr. Graham?"

Oliver started and changed colour. The unexpected question took him aback.

"No, she does not," he replied, after a pause. His tone showed clearly that the subject was an unwelcome one.

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THE EVENING STRUCK DISMAL AND COLD, OLIVER FELT ITS CHEERLESSNESS REFLECTED IN HIMSELF,

and still quite new to the experience. It was not till he had been talking for more than an hour that he remembered, with a sudden pang of self-reproach, that his friend was only just recovering from a sharp illness, and that he had been warned to make his visit a brief one. His eyes told him that she looked very tired, and he jumped up remorsefully to take leave.

Part of Mary Bruton's power with her friends lay in the fact that she was so fearless and direct. She knew no roundabout paths. When occasion called for either praise or blame, they came from her lips with a simple straightforwardness which enhanced their weight and gave them a peculiar force. Tortuous-minded people, of indefinite purpose, were afraid of her—though,

"Don't be vexed with me for asking," said

Mary gently.
"I'm not, I assure you." He tried to answer freely, but his voice was constrained and his face clouded. Why was Maidie to be for ever coming between him and the light?

"Mr. Graham, if I were you, I would tell

"Oh, no, indeed—I assure you it would not do," replied Graham hastily. In his perturbation he sat down again, and brought his frowning anxious face back to his questioner's level.

"Why not?"
"How shall I explain? My-my-Miss
Marston is so young and bright and-and
innocent. She would be perfectly horrified at

Marjory. It isn't in her, Miss Bruton, to understand the sort of creature my sister is, or the kind of life she goes in for. You can't imagine two girls more unlike in every sort of way! Maidie never was a child, I think-at least, not in the sense that Katharine is one to this day. I suppose it was through running wild in the village, and being thrown so much with people of a different class; but, from her babyhood almost, Maidie has seemed to know things and be up to people's wicked ways in a fashion that astonished me. She was a woman while she was still in short frocks. And, of course, during these last two years she has done exactly as she likes, and 'seen life,' as she would call it, according to her own sweet will. I don't know what she has not seen! While Katharine—oh, it's all as different as possible. She has been so carefully brought up; she never even went to school or made many friends of her own age; her very books have all been chosen for her, and she has led the most guarded of lives. She has never seen anything but the very properest and most orthodox side of existence! Marjory would shock her beyond words: she would think her regularly wicked-far worse than she is. And Maidie would call her prim and stuck up, and take a pleasure in scandalising her, just to annoy me. I assure you, I have thought it over, and it won't do."

"Your Katharine must come out of her glass case some time; she will have to learn that the world is not like schoolroom story-books,

urged Miss Bruton.

"Yes, I know she must; but surely it may come to her gently-by degrees-not be forced upon her in the person of a sister-in-law? It would be more than she could stand. I might lose her altogether if she and Marjory were confronted."

Mary Bruton was silent a moment, but she had not yet given up her attempt. "You don't mean, then, to let your wife share your troubles?" she asked, with a shade of irony in

"Oh, yes, I do-I suppose so-the inevitable ones, when they come! But Katharine is so young and bright, and has such powers of enjoyment; and she has had so little pleasure in her life hitherto, and does so want to be happy and enjoy herself like other girls. It's only natural! I don't mean her to begin her married life with this burden and distress upon it. I mean her to have a good time. My one aim, when she has trusted herself to me, shall be to

make her happy and shield her from trouble."
"Ah," said Mary Bruton softly, "what if you should be shielding her from the very best thing in the world—the one indispensable

thing?"

Graham smiled rather incredulously. that everlasting dreary doctrine!" he exclaimed, with a shrug of the shoulders. "People can surely be improved by happiness as well as by sorrow?"

"May be; but it mostly takes both to do it," replied Mary, with her wise smile. "Well, good-bye. You haven't convinced me, and I still hope you will see it differently and tell your Katharine about it."

"You are very good to trouble, but I've made up my mind," returned Graham doggedly. He took his leave, and walked homewards with a depressed step and his eyes on the pavement.

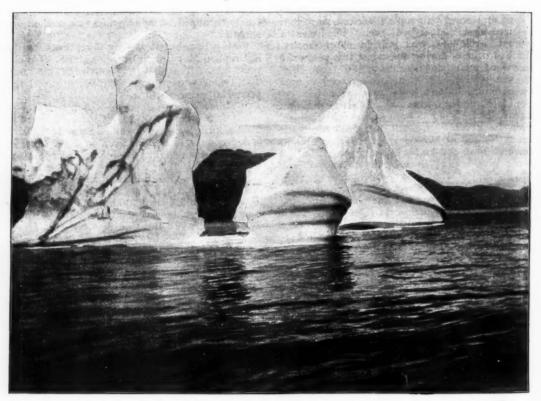
He felt, as reserved people do feel in the reaction from a fit of confidingness, that he had been making a fool of himself, and he wished he hadn't! What had possessed him to chatter so freely about his own affairs, and gush like a sentimental schoolgirl about his hopes and feelings and ideas? But that was not the inmost source of his disquiet. Why had Mary Bruton cross-questioned him about Maidie? What right had she to advise him, with that authoritative air, and to thrust her views upon him about his most delicate and private concerns? Who but himself could be the judge of what it was advisable to tell Katharine, and what it was not? It was, of course, an understood thing that girls should tell their lovers everything about themselves; but with men it was another matter. Men had such different responsibilities and claims; things were thrust upon them, to know and to do, without any choice of their own; there were matters, concerning other people, about which they were in no way bound to speak, rather in which they were bound to keep silence.

So Oliver Graham argued with himself as he walked homewards in the May twilight. An east wind was blowing keenly up the river, and after the pleasant, genial day the evening struck dreary and cold. Oliver felt its cheerlessness reflected in himself. A chilly wind had blown across the landscape of his happiness, and clouded, for the moment, the glow of its

sunshine.

THE SEAL HUNTERS OF NEWFOUNDLAND.

BY DR. WILFRED T. GRENFELL.



ICEBERGS OFF NEWFOUNDLAND

I MAY fairly assume that there are a considerable number of readers of the "Leisure Hour" who have never personally assisted in a seal-hunting expedition on the coast of Newfoundland; and as the kind of life led by the seal hunters, the character of the prey, the sights seen and the dangers encountered, are absolutely without parallel within the four seas which guard our British Isles, it may be not without interest if I recount some experiences of my own in a voyage of this kind, in which it was my good fortune to be a participant in the early spring of the year 1896.

I would not deceive anyone, and still less would I deceive a lady; and therefore let me at once own that the seal of my present article is not the original possessor and involuntary donor of that sealskin jacket in which the fair sex so much delight. No; that is the sea bear, a seal with external ears, found only on a particular group of islands in the North Pacific, and perhaps an even more interesting animal

than the seal proper. But if anyone desires to know about the sea bear, his ways and his works, his bloody fightings and furious roarings, his harem of many wives and his progeny, who slowly learn to swim, his three months' fasting and strange power of endurance, such a one may look at Major Fortune Nott's attractive book on "Wild Animals" (Sampson Low, London, 1886). It is to be hoped that this animal, so curious, so valuable, may be retained as a permanent possession for the world, and may be saved from that extinction which has befallen the American bison, and which threatens the African elephant.

The true seal of the North Atlantic has mere holes for ears (though his hearing is said to be acute); he is caught for his oil and for his skin, and the number slain every year is enormous. Four varieties are there of this animal. The Phoca barbata is the largest, but is rare. The Hood seal, with the strange leathery bag dependent from his nose, which he can inflate

and erect at will like a turkey's crest (either for protection's sake, or to allure his susceptible female, or to intimidate his rival), comes next in size; I have known him, when taken in the Gulf of St. Lawrence, in March, to measure twelve feet in length and twelve feet in girth. But it is the third variety, the Harp (Phoca Greenlandica), to which, in Newfoundland, so many poor fishermen look to fill the hungry mouths of their children after the forced inaction

of the long winter.

Living in the far north during the whole of the summer and early fall, these seals come south along the Labrador shore in November; and while some breed on the floe ice off the southern part of that coast, others turn west down the straits of Belle Isle, and breed on the more level ice of the Gulf of St. Lawrence. The bitches keep their blowholes open through the ice; up these they climb, and give birth on the surface of the floe each to a single pup about March 1. The floe drives south with the Arctic current till the end of the month. The old ones go fishing during the day, and return at night to suckle their offspring, finding with marvellous instinct among hundreds of thousands of others on that moving ice their own blowhole and their own little pup. After this time the young take to the water, and the old ones go south to the great banks for a day or so, returning north about the end of the first week in April.

The young Harps, during the first year of their life, are called, according to their age and condition, "white coats," "ragged coats," or "beaters"; in this last stage they are silvery and spotted, male and female being alike. But early in the second year the male begins to show on either side of his back the black patch, shaped like an ancient lyre, from which this

kind of seal derives its name.

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The Harp seal, as I have said, is the most frequent prey of the seal hunter. The fourth kind of seal is the Bay seal (Phoca vitulina), which is found in the bays of almost the whole Atlantic seaboard, but is comparatively rare.

Great, indeed, is the difference of the seal fishery now from what it was two hundred years ago, when men and women rowed out in punts to catch seals on the "pans," i.e. on floating masses of ice, whenever these were carried in near the shore by winds or currents; 5,000 seals per annum throughout the whole of the eighteenth century was the average catch. This has now been multiplied more than a hundredfold. At the end of the last century a notable change occurred; for then the wealthier men in St. John's and the outports began to fit out sailing vessels capable of contending with the perils of the Arctic ice. These they sent out to search for the great "patches" of breeding seals; the animals were killed and flayed on the ice, a process known as "sculping"; only the fat and skin were brought home.

All through the first half of the present century the value of the seal fishery greatly and steadily increased; until in the year 1855 some 400 schooners and brigantines, of 70 to 200 tons

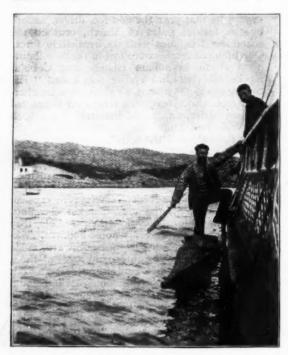
burden, carried 13,000 men to the ice. But terrible, during this period, were sometimes the disasters to these bold mariners. In the year 1817, under incessant blasts from the north-east, heavy ice was packed along the shore, and proved an impenetrable rampart, against which the frail little vessels of that day could make no progress. Many were ice-bound in the harbours; of those that had succeeded in getting out, no less than twenty-five were lost. Only 34,000 seals were taken for the whole year. But still worse was the calamity of the year 1852. In that year the floe ice, driven ashore by the furious gales of March, crushed the schooners like flies with its irresistible force. One hundred vessels were lost in the neighbourhood of the Wadham Islands and Cobbler Rocks, so that that spring was called "The Spring of the Wadhams." The crews, numbering some 3,000 men, took refuge on the rafted masses of ice, and would inevitably have been starved had not the promptitude of the Government, and the generosity of the great firm of Brooking, come to the rescue, and pre-served the endangered lives, assisting the wrecked hunters (or nearly all) back to their various homes.

In 1862, again, seventy vessels were crushed and abandoned, the crews again escaping. This time, before they left their vessels, they set fire to them. Seventy noble bonfires, drifting before the polar current southward, made the midnight sky bright to the eyes of those who sought refuge on land from the terrors of the frozen deep. But this same year inflicted a blow, more serious than any tempest, on the multitudes engaged in the seal hunting. For now steamers began to take the place of sailing vessels in the trade, and by degrees almost twothirds of the sailors lost their employment. Instead of the 13,000 sailors engaged in sealing in 1855, now, forty years later, only about 4,500 can find employment in this way; and these carry less profit home, owing to the greater expensiveness of the steamers. It may be asked, "Do, then, the owners of the vessels gain what the men lose?" It is said not, but I do not wish to enter further into a thorny and difficult question. The great and enterprising firms of Bowring, Job, Tessier, Munn, Thorburne, etc., can better answer this.

Let me describe now what I have seen myself. For weeks before the beginning of March the one absorbing topic of conversation among all classes is the prospect of the sealing fleet. For success means £50,000 (£300,000) at least to the Colony, and bread for thousands of its people. For days, and even weeks, tall and hardy men have been flocking to St. John's from far distant outports, through trackless woods, over snow-covered prairies, till the shipping wharves, wherever there is any chance of a "berth," are fairly in a state of siege. Some of these seekers come two hundred miles by water and on foot. I met one group of men who had rowed sixty miles day and night in an open boat, despite the season, then hauled up

their boat and left it, and walked some sixty more.

As soon as a sealing master is known to be "signing on," one vast mass of human beings surges around the office doorway, the men almost climbing over one another's heads in their eagerness to gain an entrance and get the chance of being among the chosen. The masters of these sealing vessels are men of note and no little importance. Some can look back on fathers and forefathers in the country



DEEPLY LADEN.

for several generations, who in steady succession have wrested a livelihood from the stormy seas and frigid ice-fields of the North Atlantic. Among the families of Blandford, Jackman, Bartlett, Pike, Keane, Adams, Mercer, Sprackling stand pre-eminent. Skilled in every artifice that can enable frail man to contend successfully against the mightiest of Nature's forces, inured all their lives to every hardship which such perilous callings involve, with what appears to the novice almost an instinct or a sixth sense for locating their prey, they have again and again proved themselves cool in danger, resourceful in difficulties, brave and generous in "standing by" comrades in distress. England may well be proud that not only in these captains, but also in all these hardy toilers of the sea, her far-off sons to-day inherit those inborn qualities which have so long been the real basis of her title of "Ruler of the Waves."

Now let us go down to the wharf and inspect the ship before she starts. Though the coast has for days been blockaded by a heavy jam of ice, and the New York mail has been five days fixed in an inlet eighteen miles to the southward, the harbour is beginning to show signs of returning activity, and is throwing off its winter garment of stagnation. Outside also for the last three days have been two Dundee whalers, torcing a passage through the frozen masses, as they must come in to get a sealing crew for "the ice," preparatory to joining the rest of the fleet.

Our ship is a large barge-rigged vessel, with auxiliary steam which will carry her ten knots an hour. But her sails will amply suffice her in case of accident. Her massive build gives her a bull-dog look as she sits on the water. Her sides, some eighteen inches thick, are sheathed and re-sheathed with "greenheart." Her timbers, of British oak, are ceiled inside with beech, and her portholes, from inside, resemble the arrow slits of some mediaval castle. Her bow is double-stemmed, a space of seven feet between, solid with the choicest hard woods. The whole is fronted with a stout column of iron to assist in battering the ice.

Below decks every corner is adapted to some purpose. Large pounds built up for seals fill the hold, but are temporarily adapted for the men to sleep in. The "pelts," that is, the fat and the skin together, must be stowed in pounds, or the friction caused by rolling will make the oil run out, and sailing vessels have even been lost, capsized by the shifting weight of imprisoned oil. Here are sacks of hard biscuits, puncheons of molasses, barrels of pork and flour, men's boxes, boatswains' stores, etc., the whole taking no little room when the crew numbers three hundred men, and may be six or eight weeks at sea. Then there are also five hundred tons of coal to stow, food for the hungry engine in her battle with the floes, for if she burns nine tons a

day in water, she burns twenty tons a day in ice. Even on deck you will notice large pounds of coal. Here, too, are numbers of boats neatly fitted into one another from which to shoot seals in loose ice; stacks of poles for "flags' to mark the heaps of dead and for gaffs to kill them with. There are huge tanks of water, too, which will constantly be replenished with ice; for at best we can only carry three days' water. Forward is a huge deck kitchen, where pork and "doughs" are cooked, and tea boiled for the ever-recurring "mug up" when work is plentiful. It must be partly these glorious doughs, this unlimited molasses, flour, butter, pork, tea, dried fish, seal meat, etc., which lures so many to strive for berths. For, sure enough, many have been on uncommonly short allowance all winter, and some have hardly known what a good square meal means at all.

Aft is the Captain's cabin, fitted with large and valuable telescopes for use from the barrels in searching for seals. Here, also, are the engineers' and boatswain's cabins, with many rifles and thousands of rounds of ammunition. Here live also the two barrel-men who search for seals from the crow's nest, on whom so much depends; and the "scunners," or "conners," who, from the foretop or forebarrel, watch for "leads" of water by which the ship may get through the ice. Two huge wheels control the rudder, and it is no sinecure office steering a heavy ship through the narrow irregular leads, as again and again she backs and charges, furiously rushing at her icy foe. Nay, more, the steering is a frequent source of danger; for more than one broken leg and many a sore blow have commemorated the "flying" or "kicking" of the wheel, as a mass of ice has caught the rudder when the ship is

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going astern. The men must sleep anywhere they can, and if they want bedding must bring what is known as a "donkey's breakfast," that is, an armful of straw in a sacking bag. It is, however, only when seals are taken in great quantities that real discomfort arises from overcrowding. Then coal must be taken out and dumped on deck, and even thrown overboard to make way for pelts, and eventually the men must leave their berths in the hold as the pounds are filled, and must sleep where they can. Men and coal and oil and pelts are mixed in indescribable confusion, and remain so till the vessel reaches port. Thus, in 1892, Captain B. Munden of the ss. Commodore, a vessel of only 290 tons register, brought in safely 31,314 seals, weighing no less than 665 tons 2 cwt. gross weight. He towed a large number of the seals behind till he got into calm water, and when he arrived in port the men could lean over the bulwarks and wash their hands in the sea, the decks being level with the water. There must, indeed, have been little accommodation left for sleeping. But no good Newfoundland fisherman would mind that for a few days, and who cares for conventionalities at the sealery? Of all our crew of 300, scarcely one man washed, except the officers, the whole voyage through. Some told me it would make them ice-blind if they ventured on such a thing.

At last the fateful Wednesday morning has arrived. Excitement has reached fever heat. Has not a man just come in with a bitch Harp and a "white coat," killed off the headland? Hundreds are at once pressing round to get a glimpse of it, the first of the season, though they have themselves killed hundreds and thousands just like it. Some are advising us to take it with us, in case we prove "jinkers," the technical expression for returning emptyhanded. A sou'-wester has blown the ice a mile or so clear of the shore. Now the Captain comes aboard with the clearance papers, and the latest telegrams from the northern telegraph stations reporting any news of seals seen from But these telegrams are seldom relied on, and are of little real value.

Now the midday gun has gone, and the vessel is hauled out into the stream; the last

visitor, who came to give the sealer's toast of "Bloody Decks," has gone ashore; now all the flags are flying bravely in the fresh breeze. Whistles are blowing; it is nearly two o'clock. A mighty cheering, again and again renewed, announces that some one's anchors are coming home; and answering cheers from shore tell that some vessel is moving out. Here comes the famous whaling steamer Aurora, with her no less famous Captain, Arthur Jackman. Proudly she steams down the harbour, the cries of her eager crew making the very hills resound. Cheers from the other ships, echoed from the wharves and town, right warmly wish her "God speed!" as, closely followed by the Neptune and the Winsor Lake, she gallantly passes out to sea, the leader of the Sealing Fleet for

Once outside, however, my narrative must follow the fortunes of the ss. Neptune, for in her I was fated to sail. Of 465 tons register, she is the largest of the fleet. None better known, or more respected, than her Captain. For six years a sailor before the mast; then, for twelve more, master of various sailing vessels; for twenty-one years Captain of a steamer, he well exemplifies the fo'c'sle saying, "In at the hawse pipe, out at the cabin window," whereby is to be understood that he has advanced himself. For now he is the Hon. Samuel Blandford, Member of the Legislative Assembly; and in that assembly the mate, his brother, sits on the opposite benches, by no means obedient! But Captain Blandford has brought home more seals than any Captain on record, and only once, in all his voyages, has he lost a man.

An hour's steaming to the north brought us into heavy ice, coming out of a deep bay and joining the broad fields of Arctic ice, stretching away to sea far beyond the reach of the eye. Ice is of various kinds: first, we have the heavy Arctic ice in enormous solid pans many square miles in area, with here and there looming up the weird form of some huge entangled iceberg, broken off from the Greenland glaciers, or coming from the never-melting fields still farther north. Born at sea, this ice is rough and jagged, with fresh-water ice on the top, formed from rain or melted snow, frozen upon the surface. Mixed with this latter are huge pieces that have been rafted up over it, and have frozen there, till the pinnacles stand from fifteen to twenty feet above the sea level, so that they strike our boats hanging in the davits as we go through. There is, of course, seven times as much ice below water. Then there is the smoother ice, formed along the coast of Labrador, or even in the great bays of Newfoundland. Level, and not nearly so thick, it is known as "whelping ice," and it is usually on this that the old seals give birth to their Then there is "dirty ice," bearing the marks of mud and stones where it touched the bottom of the bay where it was formed. This has been covered with snow, detached, broken up, and driven seaward by off-shore winds. All this ice is ever drifting southward to its.

own destruction. Once the heavy swell of the Atlantic gets beneath it, the huge pans crack up in every direction. The larger masses rush against the smaller, crushing them to crystal flakes, till the whole sea is covered with disjointed pieces separated by wide crevasses full of pounded ice and snow.



FORGING AHEAD THROUGH WHELPING ICE.

In a swell the bergs go roaring and creaking and heaving their way through the rest, lifting one pan and smashing it as they roll one way, depressing and smashing another as they roll back the other. "Growlers" they are called, and loud enough in all conscience do they growl and bellow. A gale, acting on the rough surface of the ice as a sail, continually impels fresh ice fields against these monsters, by which they are cut as by a saw. The immense mass of the bergs below water makes them move but slowly to leeward themselves, and, as the ice rushes by which they have cut, a long wake of clear water is left behind them; thus, in heavy, driving ice, the sealers often tie on to an iceberg, and thus, though burning no coal, and without straining the ship by "butting," they are actually passing through, and thus searching ice for seals at perhaps two knots an hour, in which otherwise they could make no headway at all. But even these proud and stately bergs must have an end. True, they live long enough to cross the paths of many ocean liners and other steamers, and to terrify passengers and sailors alike in these "tin boxes," as the seal hunters call them. Veiled, like Virgilian heroes, in a favouring mist, they

hold their course majestic and implacable. Slowly and surely, however, their constitution is undermined; cracks and furrows deface their venerable forms; cold perspiration pours in ceaseless streams from all their surface; water collects upon their hoary heads; soon their unsteady rolling gait shows that they are melting down below, and so they continue in their downward course, till one day, with a roar like thunder, they capsize. Only disjointed fragments re-appear, and these, as they meet the Gulf Stream, one by one swiftly dissolve within its feverish heat.

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But now the scunner is in his barrel, shouting his orders to the bridge master in quick succession: "Full speed ahead!" "Port!" "Hard-a-port!" "Starboard!" "Catch her!" "Easy astern!" "Full ahead!" and so on. The bridge master is singing out again in loud tones these orders to the five brave wheel-men on duty together, till they are pouring with perspiration, and the relief watch is eagerly awaited. It is no light work, this butting full speed through twenty feet of solid ice. Now you are nearly carried off your legs with the sudden shock; now the sloping stem arises up over the pan, cracks it and breaks through, or slips back off into the water. Now we go astern again—a "stern-man" warning the bridge master as the rudder nears the ice, which has soon closed up the vessel's wake, though often, in spite of him, the propeller or rudder comes whack! whack! against it. Down below in the cabin the engineer is grinding his teeth and holding his breath.

By the second night we had left behind all our comrades, and had caught and passed several steamers from Greenspond and other northern ports, at last sighting Cape Fogo. A whole gale raged all day, and continued right through Friday, but the ice allowed no sea to be felt. At 5 P.M. we got "jammed," and all hands went out to get their "ice-legs." I found it no easy task, this first walk over the frozen sea, climbing the hummocks, sinking into the snow, jumping over the cracks, unable from inexperience to know the sound ice from the unsound, or to tell upon how small a pan one might dare to trust oneself. Accordingly, progress was only at a snail's pace, and everyone left me behind. But an hour's practice made a great difference: with an old hand to follow, one soon learnt that to make any pace meant chiefly going straight ahead, even when loose ice is met which will not bear one's

weight more than a moment.

We were now seeing many old seals travelling past us, popping out their heads for breath in the few ponds of water visible to us. Taking my rifle, I went to the edge of one to get a shot, but the still furious gale made it bitterly cold, and the seals did not offer any fair chances. They have a most inquisitive nature, and once they sight a strange object, if it does not move to frighten them, will keep coming up out of the water up to the shoulders, then treading water and staring fixedly at the stranger. That

is the time to shoot. If they remain too far away, the sound of blowing, "Huff, huff," such as they make when they come up to breathe, will seldom fail to draw them nearer—indeed they will often dive, and vastly surprise their enemy by coming suddenly up right along-side.

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We saw this day also quite a number of seabirds, and passed a few seals on the ice, old and young, during the day; but as young seals may not be killed till the 14th, we stood on in hope of getting near the whole patch. During the night we butted for two hours, but only made some 400 yards. The fury of the gale in no way abated all day, and we noticed, as we crossed a lead of water, after dinner, some wreckage on the scattered pans at the ice edge. This wreckage proved afterwards to be the last traces of the ss. Wolf, under the famous Captain Kean, a man who owns the annual average of 20,881 seals. She left port, as we did, on the 10th, and managed to get clear of most of the islands, the off-shore wind having cleared the ice a little off the land. Hardly, however, had she got round (the rest of the Greenspond fleet following close behind), and begun to steam along between the firm, fixed shore ice and the floe, before the wind chopped round to the north, and with resistless power drove arctic icefields towards the doomed ship. pecting no mercy, the captain tried to make a harbour by butting his way in the shore ice. The gallant little Wolf drove in some twenty yards, and lay in a nook that would ordinarily But on and on swept the floe; protect her. crashed into the fixed ice; shattered and shivered its edge into a thousand pieces; rose up on the top of it; swept over the vessel like Juggernaut's car over a helpless infant; crushed in her sides with resistless might; and would certainly have sent her instantly to the bottom, had it not hugged her for the moment too tightly in its icy embrace.

Men of action are these captains. Not a moment was lost in vain regret or useless hopes. Boats, provisions, clothes, and all they could save of the year's outfit were hastily piled on the ice, but before his own clothes were saved, a momentary slackening of the ice occurred, and at once, head first, down like a stone went the good ship, snapping her masts like matchwood as she took the fatal plunge through the ice. Now began a sorrowful march for the shore, as the 300 men, carrying or dragging all they could, started for home. Empty cupboards, pale faces, and hungry mouths were all that many of these brave fellows had to face after the long and sorrowful march of 200 miles or more. Yet it was but history repeating itself here also, and many a tale we listened to of days, and even weeks, spent on the treacherous pans by shipwrecked sealing crews. On board, the general feeling was that only by a special providence no more of the fleet had turned the island, for all would inevitably have been lost.

The 14th broke fine, and the long and narrow

Neptune worked her way cleverly through the ice, and once again distanced all her rivals. This is a noble sight to watch from the giddy height of the crow's nest; and when the ship strikes heavily against a solid mass of ice, and is brought up "all standing," one can enjoy in the barrel a unique sensation as of an arrow just leaving the bow-string. We took a young Hood seal and a few young Harps, as we fought our way all day to the north and west. night we continued the battle; and the day after we passed through at least a thousand seals. But it was Sunday, on which day our captain would not touch them, but just went ahead, hoping to find a still thicker "spot" farther on.

For services on Sunday there was no place but the holds. It was far too cold to be on deck, and yet, to get room below, quite half the congregation must be in bed. There was no help for it, however, and quickly at service time, not only all the rough bunks and pounds were full of men, but also all the spaces between innumerable boxes, barrels, puncheons, coal lockers, bread sacks, etc. Sailors are always quick to pick up tunes, and the notes of old familiar hymns used to ring out lustily from the open hatch, and were lost in the endless ice fields, though the rude shocks and gruesome noises which greeted us down below as we charged the ice would have disconcerted a more sophisticated audience. My pulpit was the companion ladder, though even there the lower steps were occupied by my crowded congrega-

Now I had grand opportunities of watching the young seals. Balls of snow-white fluff, these innocent-looking babies lie basking in their icy cradles, equally happy in sunshine or falling snow, sometimes for hours on their backs, flapping their flippers impotently like fans, unable from sheer fat to get over again. In the coldest, stormiest season they grow fastest and fattest, so marvellously does Nature provide for their necessities. Nor does she do less for the old seals. So thin that they sink at once if shot in the water in summer, as winter approaches they fatten and fatten up, till now they enjoy this terribly cold water as we would a bath in summer. They dive in off the ice, paddle to and fro in the water, throw themselves on their backs and float, puffing out their chests and throwing showers of water over their up-turned noses with their fore-Side stroke and breast stroke, diving and sounding, they sport about, till one almost feels tempted to follow and share their rapturous pleasures.

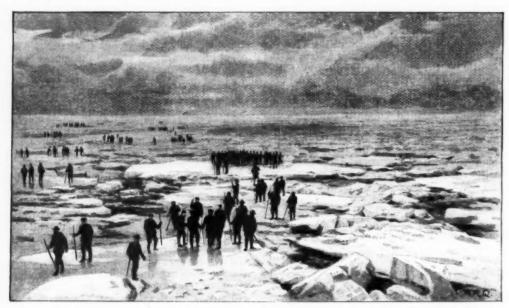
All next day disappointment awaited us. Though breakfast was taken before daylight in anticipation of great things, not a seal did we see all day, except that through our glasses we could see the ss. *Hope* leisurely taking those we had passed through yesterday. At evening an enormous sun sank like a glorious red ball of fire behind the horizon, dyeing all its pinnacles and bergs first golden and then blood

red, while at night the northern lights with the young moon made its surface one vast sheet of glancing silvery spangles, dancing like elves as the ethery waves lit up now one portion, now another of the heavens. The water, too, near the ship lapped up over the ice, and the phosphorescent animalculæ really left on the surface appeared like far-off fairy lamps buried away down in its inmost recesses. We made great progress that night, and at daylight there were welcome signs of seals. "Bobbing holes" were sighted in the more level ice all around, out of which seals' heads were constantly popping to breathe, or sniff and stare at the strange intruder.

The excitement instantly grows intense now a few "white coats" are visible. The Captain has

loud bleating of the young seals from the deck, and no one thinks of the weather; even dinner is forgotten, and every man is on deck, his knife sharpened and in his belt, booted and eager for the fray. Exactly at midday the order from the mast-head is shouted down, "All hands on the ice!" "Haul all pelts to the ship!" and almost in less time than it takes to write it, the men are overboard and scattering in every direction.

Now the killing of young seals has been frequently described as brutal and brutalising, and the seal hunters depicted as inconceivable savages, and this not only by shrieking faddists or afternoon tea drinkers. But, to my mind, the work is not nearly so brutalising as the ordinary killing of sheep, pigs, or oxen, driven terror-



"ALL HANDS ON THE ICE!"

been some hours in the barrel. Alas! we are "bogged," and can get neither ahead nor astern. "All hands roll the ship!" came from aloft. Three hundred men rush from port to star-board, and starboard to port, making the ship lurch from side to side, and loosening the grip of the ice. New all hands are out with ice chisels, axes, crowbars, and a huge rope round her bow. A hundred men pulling on each side of her, another hundred hammering, levering, and chopping; the propeller going full speed, and everyone shouting and yelling, the whole as seen from the barrel resembling an army of ants, forming and re-forming, marching and counter-marching, till at length a huge yell announces that the ship is moving once more. Then there is a desperate scramble for the ship, from the sides of which hang long wooden fenders, up which the men climb. It is bitterly cold again, the wind is increasing, and slight snow falling, but at last we can hear the

stricken to the shambles, which are already reeking with their fellows' blood.

Here the animal is too young to feel fear, and evinces no signs of it; no animal is wounded and left to die in vain. The "crying" of young seals is not from fear, but hunger. One often hears them crying all night for their dams, while they never give tongue at man's approach.

It is only in killing the old dog Hood seals that one feels the "savagery" of killing anything, for the Hood's marvellous vitality is only equalled by his pluck. I watched four men fight an old dog Hood one day on a small pan. Reared up on his haunches, with his hood blown up, he awaited the attack. The first blow, struck on his hood, might as well have hit a stone wall, while catching the second gaff-end cleverly in his teeth, he shook its long handle to such good purpose that he cleared the pan of his enemies in an instant. Though he could at any moment have slipped off into

the water, he would not do so, and soon a lucky blow under the jaw stretched him out. A perfect shower of blows on the head seemed to finish him off, and, a heavy strap being placed round him, he was hauled to the bulwarks by the steam winch. Just as he got there his immense weight broke it down, and he disappeared, we thought for good. But in a minute or so he suddenly appeared again, and, refreshed by the cold water, he climbed out on to the very same pan, where the hunters were ungallant enough to return and despatch him with their long knives. Nor does the hunter by any means have it all his own way. So agile and powerful are these heavy beasts that they will jump clear out of the water on to a pan six to ten feet high without touching the edge, when in no other way they could climb on to it, and many a man has been badly mauled and bitten, and dragged into the water in endeavouring to capture the valiant old fellows.

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Blood-stained roads lay now in every direction, and in many places high pinnacles, red with blood, marked like milestones the way some hunter wished to return in order to pick up the peltof some solitary "swile" he had killed. Rows and rows of men were returning and going, each hauling behind them a tow of four or five seals, laced like a long caterpillar, with the last skin flat like a raw beefsteak, to keep the whole from rolling over. By the way, a man once sneering at a fisherman's pronunciation asked, "How do you spell 'swiles'? "We don't spell 'em, sir, we mostly haul's 'em," was the reply, for "spell" in Newfoundland means "to carry on your back." The caviller did not understand that, so that the bystanders laughed at his expense.

The steam winch was hard at work when I reached the ship again, and by night some 4,000 pelts were safely stowed. The long lines of wearied blood-stained men were early home, for all the afternoon the south-east wind had been steadily increasing in violence, and had now risen to a hurricane, whirling up dense black clouds.

The snow fell so thick that one could not see the bow from the stern of the ship, and it soon obliterated both paths and pinnacles. By six o'clock the "gangs" were aboard, every gang of ten men being under a master, who keeps "tally" of the seals they kill. But on calling the roll, one man was found missing, a young fellow of twenty-one years, whose father had been lost the very same way years before. Seven o'clock came, half-past seven, eight, an impenetrable veil of thick darkness covered the ship like a shroud, while the howling of the storm through the cordage made most dismal music, and seemed to chant a death dirge for the missing man. So fierce was the storm that volunteers were not allowed to leave the ship, for torches could have been of no use, and the ice in places was very treacherous. All that could be done was to put up a big light and to get up steam to keep the syren going every few minutes, its dismal shriek being whirled away into the storm. At 9.30, after all hope had been given up that we should find him before morning, the wanderer turned up. By good fortune he had been to leeward of the vessel, and not far away. He had heard the first blast of the syren, and had been ever since feeling his way along with the gaff, advancing a few yards every time he heard the syren sound.

The "dwey," or snowstorm, held all night, and, in spite of the thousands of seals around us, it was impossible to work on the ice till midday. Then we were all out till nightfall "panning seals. This means dragging the pelts to the most convenient place, and, when all the seals near are killed, putting up a "house-flag" with the name of the ship on the top. The first layer must be placed flesh down, or the hair will freeze to the ice and the skin be spoiled, the rest hair down. When a flag is stuck the gangs move on ahead repeating the process. Thus time is saved, which is of great importance if several vessels are at the same patch of seals. But panning is at best a bad system, for often many pans are lost altogether in bad weather, and a vessel may have to kill three loads to get one, or else the ice may crack up and the pelts after all be lost in the water.

It is terribly cold work to one's hands sculping seals, for they get soaked with blood, which at once freezes in the wind, and if gloves are used they soon become a block of frozen blood, so that it is impossible to get one's hands into them. The rough ice and deep snow had been very hard on the men, who were now fairly up to the waist in snow, now slipping off a high pinnacle, and all the time dragging two hundred pounds weight behind them.

A glorious sunrise lighting up the gleaming ice found us all ready again for work in the morning, and showed our blue flags with white centres waving their silent watches over heaps of slaughtered innocents. Having now several patients to tend, I could not leave with the crowd, who went off in two gangs, half going on the old tracks, and the other half from a point two miles farther westward. It was impossible as yet to get to our pans, for all were on one enormous field of ice, so we would have to wait till that broke up. At midday the barrel man called my attention to the very least surge backwards and forwards of the ship as we lay. One could only notice it standing on the ice and looking closely, but he warned us the ice would commence to break up in a couple of hours, and this it certainly did, though apparently without any rhyme or reason. Huge splits began to run in every direction to a doleful groaning accompaniment, and soon we were able to move ahead slowly by means of butting. It was only some hours later we noticed the sullen heave of the swell which had done us a good turn. Pan after pan of seals we reached and took in, and at night had 10,000 pelts safely stowed on deck and below. The hot pelts, i.e. those recently taken, must lie on deck twenty-four hours to freeze, or they will heat in the holds and the oil will run away.

Openings in the ice had occurred under two pans we picked up to-day, March 19, and the pelts falling into the water had attracted many large sharks. I put a bullet through one big fellow, and the men caught three more swimming on the surface with their gaffs. These were about twelve feet long, but, as they were well gorged, they made little resistance. After pulling them out on to the ice their tails were cut off, as the only sure way to kill them. They will continue to feed after being repeatedly stabbed, and, as the men declared, even when disembowelled.

Several men were ice blind now-twenty-five in all. This is a form of inflammation which

the pan passing right over him. This also is a great source of danger to the ship in heavy weather, for masses of ice weighing hundreds of tons are hurled by the sea against the broadside of the vessel, and the shock and noise below decks are terrific. In these cases the steamers push into the tighter ice, where possible, or keep steaming so as to lie head on to the swell.

The ice now, April 1, became very loose.

The ice now, April 1, became very loose. The weather got worse and worse, and the seals scarcer and scarcer. The existence of Diogenes in his tub could have been neither more crowded nor more unstable than was ours, as day after day we lay about in the Atlantic swell. At last our engineer reported oil in the

well. The constant friction was undermining the constitution of our cargo, and soon we were daily losing more than we were catching. Had we had only a few seals we should have hauled them out into the ice and re-frozen them, but with our quantity that was out of the question. So at midday on April 4 the Captain gave orders to prepare for home. Everything was first stowed below decks that could possibly be stowed, such as barrels of pork, sacks of flour, etc., boats were slung on board, flags dried, rolled, and put away. Three days' ice was piled up on our quarter for fresh water, and sealing gaffs and tow ropes called in.

At daylight next morning we sighted land, having got clear of the ice about 5 P.M.,

and steamed in on a westerly course. The calm weather greatly favoured us, for the ss. Newfoundland, which had reached home before us, encountered a terrible gale after leaving the ice, lost some of her boats and much deck gear, and very nearly foundered with all hands.

Though it was so early, and Sunday also, when we entered the harbour at St. John's, our dynamite rockets brought out crowds of friends, and our decks were soon crowded. The famous Neptune and her no less famous Captain turned out to have the best cargo of all the fleet, 22,496 seals, weighing 2,188 tons.

It was with great regret that I took leave of the Captain and crew. I felt that I was leaving many good friends. In spite of blood, oil, coal, dirt, in spite of cold, wet, dangerous and hard work, and in spite of their very rough quarters, the men proved themselves to be good-natured, reliable, and kind beyond measure to the greenhand amateur. The brutality I had feared I was about to witness had been conspicuous by its absence, and I can only say that I hope it may again fall to my lot to make one of a seal-fishing crew.



TOWED THROUGH BY AN ICEBERG

makes the eye exceedingly sensitive to light, and causes severe headache. Night and morning after this I had a regular round for the iceblind, dropping in cocaine first and afterwards a lotion, and then bandaging up the eyes with cold snow water.

We had now 20,000 seals aboard. After picking up all our pans we steamed to the north day after day, now meeting one steamer, now another, generally fighting through heavy ice, and now and again having one or two smaller steamers taking advantage of our wake. One day a polar bear had the hardihood to cross between us and the ss. Aurora, and was promptly shot by the Captain, though it escaped The hunting became far more eventually. dangerous and difficult, and it was never safe for one man to go alone. The swell was often so heavy as we travelled along that we were constantly ascending hills and crossing valleys, the motion being so perceptible that a bad sailor would inevitably get sea-sick.

The rushing of the big pans together was the worst danger, for men might then be badly crushed between. We nearly lost one man in that way, and the ss. *Leopard* did lose one,

GREENWICH OBSERVATORY.

BY E. WALTER MAUNDER, F.R.A.S.

STORM AND SUN.



THE SOUTH-WEST CORNER OF THE OBSERVATORY.

"He that is weather wise."

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SAYS the proverb, and the saying is not without a shrewd amount of truth. For perhaps nowhere can we find a more striking combination of imperfect observation and inconsequent deduction than in the saws which form the stock-in-trade of the ordinary would-be weather prophet. How common it is to find men full of the conviction that the weather must change at the so-called "changes of the moon," forgetful that

"If we'd no moon at all—
And that may seem strange—
We still should have weather
That's subject to change."

They will say, truly enough, no doubt, that they have known the weather to change at "new" or "full," as the case may be, and they argue that it, therefore, must always do so. But in fact they have only noted a few chance coincidences, and have let the great number of discordances pass by unnoticed.

But observations of this kind seem scientific and respectable compared with those numerous weather proverbs which are based upon the mere jingle of a rhyme, as

"If the ash is out before the oak,
You may expect a thorough soak "---

a proverb which is deftly inverted in some districts by making "oak" rhyme to "choke."

Others again are based upon a mere childish fancy, as, for example, when the young moon "lying on her back" is supposed to bode a spell of dry weather, because it looks like a cup, and so might be thought of as able to hold the water.

TRUE WEATHER WISDOM.

During the present reign, however, a very different method of weather study has come into action, and the foundations of a true weather wisdom have been laid. These have been based, not on fancied analogies or old wives' rhymes, or a few forechosen coincidences, but upon observations carried on for long periods of time and over wide areas of country, and discussed in their entirety without selection and bias. Above all, mathematical analysis has been applied to the motions of the air, and ideas, ever gaining in precision and exactness, have been formulated of the general circulation

of the atmosphere.

As compared with its sister science, astronomy, meteorology appears to be still in a very undeveloped state. There is such a difference between the power of the astronomer to foretell the precise position of sun, moon, and planets for years, even for centuries, beforehand, and the failure of the meteorologist to predict the weather for a single season ahead, that the impression has been widely spread that there is yet no true meteorological science at all. It is forgotten that astronomy offered us, in the movements of the heavenly bodies, the very simplest and easiest problem of related motion. Yet for how many thousands of years did men watch the planets, and speculate concerning them, before the labours of Tycho, Kepler, and Newton culminated in the revelation of their meaning? For countless generations it was supposed that their movements regulated the lives, characters, and private fortunes of individual men; just as quite recently it was fancied that a new moon falling on a Saturday, or two full moons coming within the same calendar month, brought bad weather!

It is still impossible to foresee the course of weather change for long ahead; but the difference between the modern navigator, surely and confidently making a "bee-line" across thousands of miles of ocean to his destination, and the timid sailor of old, creeping from point to point of land, is hardly greater than the contrast between the same two men, the one watching his barometer, the other trusting in the old wives' rhymes which afforded him his

only indication as to coming storms.

It is still impossible to foresee the weather change for long ahead, but in our own and in many other countries, especially the United States, it has been found possible to predict the weather of the coming four-and-twenty hours with very considerable exactness, and often to forecast the coming of a great storm several days ahead. This is the chief purpose of the two great observatories of the storm-swept Indian and Chinese seas, Hong Kong and Mauritius, and the value of the work which they have done in preventing the loss of ships, and the consequent loss of lives and property, has been beyond all estimate.

METEOROLOGY AT GREENWICH.

The Royal Observatory, Greenwich, is a meteorological as well as an astronomical observatory, but it does not itself issue any weather forecasts. Just as the Greenwich observations of the places of the moon and

stars are sent to the "Nautical Almanac" Office, for use in the preparation of that ephemeris, just as the Greenwich determinations of time are used for the issue of signals to the Post Office, from whence they are distributed over the kingdom, so the Greenwich observations of weather are sent to the Meteorological Office, there to be combined with similar records from every part of the British Isles, to form the basis of the daily forecasts which the latter office publishes. To each of these three offices, therefore, the Royal Observatory, Greenwich, stands in the relation of purveyor. It supplies them with the original observations more or less in reduced and corrected form, without which they could not carry on most important portions of their work.

Let it be noted how closely these three several departments, the "Nautical Almanac" Office, the Time Department, and the Meteorological Office, are related to practical navigation. Whatever questions of pure science—of knowledge that is apart from its useful applications—may arise out of the following up of these several inquiries, yet the first thought, the first principle of each, is to render navigation

more sure and more safe.

THE BAROMETER.

The first of all meteorological instruments is the barometer, which, under its two chief forms of mercurial and aneroid, is simply a means of measuring the pressure exerted by the atmo-

sphere

There are two important corrections to which its readings are subject. The first is for the height of the station above the level of the sea; the second is for the effect of temperature upon the mercury in the barometer itself, lengthening the column. To overcome these, the height of the standard barometer at Greenwich above sea-level has been most carefully ascertained, and the heights relative to it of the other barometers of the Observatory, particularly those in rooms occupied by fundamental telescopes, have also been determined, whilst the self-recording barometer is mounted in a basement, where it is almost completely protected from changes of temperature.

THE THERMOMETER.

Next in importance to the barometer as a meteorological instrument comes the thermometer. The great difficulty in the Observatory use of the thermometer is to secure a perfectly unexceptionable exposure, so that the thermometer may be in free and perfect contact with the air, and yet completely sheltered from any direct ray from the sun. This is secured in the great thermometer shed at Greenwich by a double series of "louvre" boards, on the east, south, and west sides of the shed, the north side being open. The shed itself is made a very roomy one, in order to give access to a greater body of air.

A most important use of the thermometer is in the measurement of the amount of moisture in the air. To obtain this, a pair of thermometers are mounted close together, the bulb of one being covered by damp muslin, and the other being freely exposed. If the air is completely saturated with moisture, no evaporation can take place from the damp muslin, and consequently the two thermometers will read the same. But if the air be comparatively dry, more or less evaporation will take place from

the same. But if the air be comparatively dry, more or less evaporation will take place from different places pressure, we sh

Self-registering thermometer.

(From a photograph by Negretti & Zambra.)

the wet bulb, and its temperature will sink to that at which the air would be fully saturated with the moisture which it already contained. For the higher the temperature, the greater its power of containing moisture. The difference of the reading of the two thermometers is therefore an index of humidity. The greater the difference, the greater the power of absorbing moisture, or, in other words, the dryness of the air. The great shed already alluded to is devoted to these companion thermometers.

WIND.

Very closely connected with atmospheric pressure, as shown us by the barometer, is the study of the direction of winds. If we take a map of the British Isles and the neighbouring countries, and put down upon them the barometer readings from a great number of observing stations, and then join together the different places which show the same barometric pressure, we shall find that these lines of equal

pressure—technically called "isobars"—are apt to run much nearer together in some places than in others. Clearly, where the isobars are close together it means that in a very short distance of country we have a great difference of atmospheric pressure. In this case we are likely to get a very strong wind blowing from the region of high pressure to the region of low pressure, in order to restore the balance.

If, further, we had infor-mation from these various observing stations of the direction in which the wind was blowing, we should soon perceive other relationships. For instance, if we found that the barometer read about the same in a line across the country from east to west, but that it was higher in the north of the islands than in the south, we should then have a general set of winds from the east, and a similar relation would hold good if the barometer were highest in some other quarter; that is, the prevailing wind will come from a quarter at right angles to the region of highest barometer, or, as it is expressed in what is known as "Buys Ballot's law," "stand with your back to the wind, and the barometer will be lower on your left hand than on your right." This law holds good for the northern hemi-

sphere generally, except near to the equator; in the southern hemisphere the left hand is the side of low barometer.

The instruments for wind observation are of two classes: vanes to show its direction, and anemometers to show its speed and its pressure. These may be regarded as two different modes in which the strength of the wind manifests itself. Pressure anemometers are usually of two forms: one in which a heavy plate is allowed to swing by its upper edge in a position

fronting the wind, the amount of its deviation from the vertical being measured; and the other in which the plate is supported by springs, the degree of compression of the springs being the quantity registered in that case. Of the speed anemometers, the best known form is

ANEMOMETER.

the "Robinson," in which four hemispherical cups are carried at the extremities of a couple of cross bars.

For the mounting of these wind instruments the old original Observatory, known as the Octagon Room, has proved an excellent site, with its flat roof surmounted by two turrets, in the north-east and north-west corners, and raised some 200 feet above high-water mark.

SUNSHINE AND SHOWER.

The two chief remaining instruments are those for measuring the amount of rainfall and of full sunshine. The rain gauge consists essentially of a funnel to collect the rain, and a graduated glass to measure it. The sunshine recorder usually consists of a large glass globe arranged to throw an image of the sun on a piece of specially prepared paper. This image moves along the paper as the sun moves in the sky, charring it as it moves, and at the end of the day it is easy to see, from the broken, burnt trace, at what hours the sun was shining clear, and when it was hidden by cloud.

An amusing difficulty was encountered in an attempt to set on foot another inquiry. The

superintendent of the meteorological department at the time wished to have a measure of the rate at which evaporation took place, and therefore exposed carefully measured quantities of water in the open air in a shallow vessel. For a few days the record seemed quite satis-

factory. Then the evaporation showed a sudden increase, and developed in the most erratic and inexplicable manner, until it was found that some sparrows had come to the conclusion that the saucer full of water was a kindly provision for their morning "tub," and had made use of it accordingly.

SELF-RECORDING INSTRUMENTS.

A large proportion of the meteorological instruments at Greenwich and other first-class observatories are arranged to be self-recording. It was early felt that it was necessary that the records of the barometer and thermometer should be as nearly as possible continuous; and at one time, within the memory of members of the staff still living, it was the duty of the observer to read a certain set of instruments at regular two-hour intervals during the whole of the day and night—a work probably the most monotonous, trying, and distasteful of any that the Observatory had to show.

The two-hour record was no doubt practically equivalent to a continuous one, but it entailed a heavy amount of labour. Automatic registers were therefore introduced whenever they were available. The earliest of these were mechanical, and several still make their records in this manner.

On the roof of the Octagon Room we find, beside the two turrets already referred to, a small wooden cabin built on a platform several feet above the roof level. This cabin and the north-western turret contain the wind-registering instruments. Opening the turret door, we find ourselves in a tiny room which is nearly filled



CAMPBELL-STOKES SUNSHINE-RECORDER.

by a small table. Upon this table lies a graduated sheet of paper in a metal frame, and as we look at it, we see that a clock set up close to the table is slowly drawing the paper across it. Three little pencils rest lightly on the face of the paper at different points. One of these,

and usually the most restless, is connected with a spindle which comes down into the turret from the roof, and which is, in fact, the spindle of the wind vane. The gearing is so contrived that the motion on a pivot of the vane is turned into motion in a straight line at right angles to the direction in which the paper is drawn by the clock. A second pencil is connected with the wind-pressure anemometer, and the character

of its trace may be seen in the adjoining photograph, which shows its record for twenty-four hours during the gale of November last. The third pencil indicates the amount of rain that has fallen since the last setting, the pencil being moved by a float in the receiver of the rain gauge.

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An objection to all the mechanical methods of continuous registration is that, however carefully the gearing between the instrument itself and the pencil is contrived, however lightly the pencil moves over the paper, yet some friction enters in and affects the record: this is of no great moment in wind registration, when we are dealing with so powerful an agent as the wind, but it becomes a serious matter when the barometer is considered, since its variations require to be registered with the greatest minuteness. When photography, therefore, was invented, meteorologists were very prompt to take advantage of this new ally. A beam of light passing over the head of the column of mercury in a thermo-

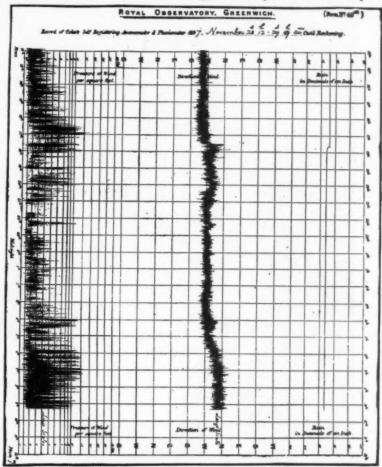
meter or barometer could easily be made to fall upon a drum revolving once in the twenty-four hours, and covered with a sheet of photographic paper. In this case, when the sensitive paper is developed, we find its upper half blackened, the lower edge of the blackened part showing an irregular curve according as the mercury in the thermometer or barometer rose or fell, and admitted less or more light through the space above it.

Here we have a very perfect means of registration: the passage of the light exercises no friction or check on the free motion of the mercury in the tube, or on the turning of the cylinder covered by the sensitive paper, whilst it is easy to obtain a time scale on the register by cutting off the light for an instant—say at

each hour. In this way the wet and dry bulb thermometers in the great shed make their registers.

ASTRONOMICAL METEOROLOGY.

The supply of material to the Meteorological Office is not the only use of the Greenwich meteorological observations. Two elements of meteorology, the temperature and the pres-



ANEMOMETER TRACE OF THE GALE OF NOVEMBER 28, 29, 1897.

sure of the atmosphere, have the very directest bearing upon astronomical work. And this in two ways. An instrument is sensible to heat and cold, and undergoes changes of form, size or scale, which, however absolutely minute, yet become, with the increased delicacy of modern work, not merely appreciable, but important. So too with the density of the atmosphere: the light from a distant star, entering our atmosphere, suffers refraction; and, being thus bent out of its path, the star appears higher in the heavens than it really is. The amount of this bending varies with the density of the layers of air through which the light has to pass. The two great meteorological instruments, the thermometer and barometer, are therefore astronomical instruments as well

PAUL CARAH CORNISHMAN.

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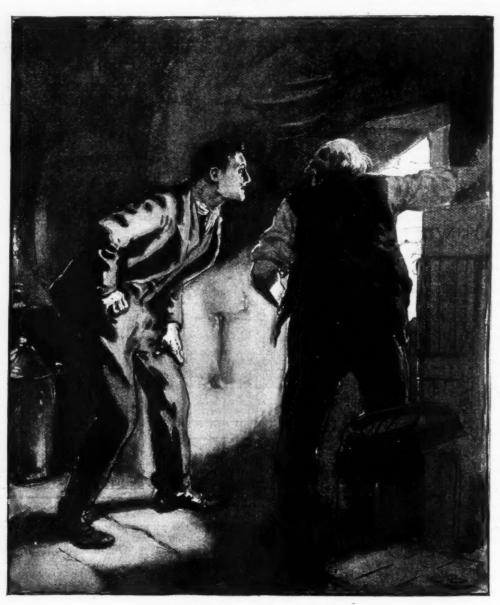
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BY CHARLES LEE.



A SUDDEN FLOOD OF MOONLIGHT POURED ON THEIR FACES.

CHAPTER XVI.

RESEIGH, enjoying the evening air at the shop door, saw Paul hurrying up the street, and beckoned to him as he passed. "Step inside, Paul," he said. "I was lookin' out for 'ee. Step inside an' have a chat with an auld fellow."

Paul followed him into the musty shop. Two of the village wives, at voluble argument with the girl over the counter, came to a sudden silence as the two entered, and stared curiously at Paul.

"Are 'ee sarved yet, Mis' Jackson an' Mis' Polsue?" asked the master.

"Ess, to be sure," said Mrs. Jackson, with

hurried obsequiousness. "Haelf a pound o' candles an' a pennord o' saffern.'

"Happord o' pins an' happord o' sugar,"

added Mrs. Polsue.

"An' sixpennord o' scand'lous gossip, I've no doubt," said Reseigh.

They laughed nervously.

"On'y havin' a bit of a chat," apologised Mrs. Jackson.

"Finished yet?" "Ess, s'pose."
"Paid?"

"Well, no. We thought you wouldn' mind us trustin' 'ee a bit longer."
"Entered?" This to the girl.

"Just a-goin' to," she replied in a terrified

"Gossip first, business arterwards. That's your way, is 'a? Gie me the book."

He opened the bulky register of Porthvean's woes, turned over some leaves, and made the

"I'll divide the sixpennord o' gossip between 'ee-thruppence aich," he said, and wrote again, without a chuckle at his grim joke.

They quavered a laugh, not daring to protest.

He shut the book with a bang.

"An' now, out wi' 'ee quick. I pay the maid to work, not to chatter with auld go-'bouts. Out you go."

They scuttled off, and Reseigh turned to the

"You're a fine one," he said. "Put up the shutters, an' go thee 'st home. I waste no words on 'ee, but you'd better be'ave."

His manner changed as he turned and ad-

dressed Paul.

"Will 'ee walk into my parlour, Paul?"

What obscure memory was it that jingled at the back of Paul's brain? And why, at that particular moment, should he be thinking of Ben Jose's lurid comparison of Reseigh to a spider?

They entered the little back room, Reseigh carefully closing the door behind him.

"Sit down, Paul," he said, "an' make yourself comfortable."

He sat down himself, facing Paul.

"Paul," he said, "I hear you're in trouble, an' vexed I am to hear et.'

The flood-gates were opened, the torrent poured forth. Reseigh listened politely, with a grave "Well, well!" or "Scand'lous!" where occasion demanded, until the whole iniquity of Porthvean had been laid bare.

"A bad business," he said, when Paul had shouted himself into the temporary silence of breathlessness. "A bad business, sure 'nough. I wouldn' ha' b'lieved et o' Porthvean folk, though I haven' much opinion of 'em, nuther.'

A sensible chap, this. He and Paul were of one mind there.

"When a chap's in trouble," continued Reseigh, "then's the time for his true friends to show themselves."

A frown began to gather on Paul's face.

Was another insulting proposal coming? Reseigh's eyes on him were the cat's on the

suspicious sparrow.

"D'ye mind," he said, "what I tauld 'ee when you come here first? They were agin you then, an' I said ti' 'ee, said I-' You're welcome to anythin' in my shop, an' pay when you like.' You mind that, don't you?"

Paul did, and his frown darkened. If Reseigh

thought-

A wave of Reseigh's hand stopped him.

"That was before I understood your char'cter. dedn' knaw you then-your pardon for that. I knaw you now, an' I wouldn' make no such offer, not for worlds. Help! You edn' the sort that looks for help. You stand on your own feet, you do.'

His own words! Inevitably he thought of a scene lately transacted in the Joses' cottage, and the contrast shed a blaze of glory on Reseigh's head. Here, at least, was one who

understood and admired him.

"Ef 'twas another chap, an' I liked him as I've growed to like you, my hand 'ud be in my pocket to wance. You've heard hard words agin me in the town, I've no doubt, but I edn' what they do want to make me out. They don't understand my char'cter, no more than they do yours. I'm fo'ced to sim hard to the world, or the world 'ud stank me under ets heel. But my natur' edn' so."

That was what Paul was always telling them. A kinder-hearted, more generous fellow than Reseigh did not exist. Paul had always stuck up for him, and always would. Misunderstood, grossly vilified, they were a pair; 'twas their

duty to stand shoulder to shoulder.

Reseigh was very grateful to Paul for his kind words; and it was their duty, as Paul

said, to stand shoulder to shoulder.

"Well," he continued, "ef 'twas any other chap but you, as I said, I'd offer 'ee my shop an' my purse, an' be proud for 'ee to take what you liked. Seein' et's you, I don't. But I've an offer to make 'ee, f'rall that. Edn' no question o' help. 'Tes what you may call mutual 'ccommodation-a kind o' partnership, you may say."

Paul was all gratified attention.

"I've got a scheme," Reseigh went on; "an' 'tes a scheme that wants a bauld, active, crafty chap to carr' en out."

A scheme? Paul pricked up his ears. " Where am I to find such a chap?' said I; an' I looked round, an' there wadn' none. Then you came; an' soon's I clapped eyes upon 'ee — 'That's the chap for me!' said I. 'Ef I could pick the world over, that's the chap.' Well, I'm slow an' careful, so I watched 'ee an' watched 'ee, makin' my plans the while; an' now they're ready, an' I'm ready, an' sim' me you're ready too, ef you'll agree.

Bold, active-we are ready for anything. Crafty-we do not commit ourselves rashly,

but wait for further particulars.

"You smoke a pipe," said Reseigh, "so you d'knaw how cheap an' good I sell tobacco.

You don't drink—you're too sensible for that—but you've noticed what a lot o' little-drop men there are in this town. An' how? Brandy's cheap over to 'Fisherman's Arms.' Cheap tobacco an' cheap brandy; spell that out for me."

Paul winked knowingly. He knew well

enough.

"'Course you do. Chap goes out from here to draw his nets. French trawler comes along. 'Got any fish?' says he. 'Ess, plenty o' fish.' 'We want fish,' says Frenchy. 'You want tabac, odyvee?' Our chap nods his head. They draw up alongside; our chaps throw up the fish, Frenchy lowers a keg or a package, as the case may be, an' so good-bye. Keg or package, et comes to me; I don't knaw where a comes from, nor I don't ask; 'tes offered

cheap, an' I buy et.

"Well, you say, edn' nothin' out o' the common in that; 'tes the same all round the coast. 'Tes in the blood of us Cornishmen. But 'tes a mean business nowadays, not like what 'a was in the auld ancient time. Why, there edn' a house in Porthvean, nor a farm up-country for miles, that hasn' got its secret hidin'-places under drexles an' between planchin's an' inside roofs, where they used to keep the stuff. In this very house—but I'll show 'ee presently. They were all in et—bauld Cornishmen, wan an' all, an' a fig for English preventives! The sperit's clane gone out of 'em now. Time to wake et up agin, say I, an' bring the auld days back."

He stopped and glanced at Paul's eager face, snuffing romantic adventure. His eyes narrowed, and he stretched out a fat hand and laid

it on Paul's arm.

"You're the wan to do et," he said.

"Young, bauld, crafty, you're the wan."
So he was! Reseigh's words were the bugle to the war-horse, sounding the charge. Every fibre in him responded. Patriotism, adventurous risk, scope for scheming, dazzling prospect of fortune—was ever venture so completely congenial?

"Now look," continued Reseigh. "I'm auld an' fat; my brain edn' like yourn; 'tes slow an' dull. But I've worked out a sort of a plan in my slow, tayjous way, an' 'tes at your

sarvice ef you like to hear en.

By all means. Out with the little plan, and

we'll do our best to lick it into shape.

Humbly inviting criticism, Reseigh proceeded to explain. In the way of business, he had correspondence with a certain fish-buyer, who also owned some boats, in a certain town on the coast of Brittany. Arrangements might be made—in fact, they had already been made in a tentative fashion—by which, on occasions depending on the state of moon and tide, a boat belonging to his correspondent would sail on a trawling expedition across Channel. With a full cargo, and the Breton coast far away, what more natural than that it should make for Pendennack or Porthloy, there to dispose of its fish? On its way, 'twould be easy to reach a prearranged spot outside Porthvean

at a prearranged time; a spot where a Porthvean man might have set his lines or nets without exciting the least suspicion. If the Porthvean man happened to be there at the prearranged time, attending to his lines, it seemed likely that the boats would run across each other; and if the French boat had more of what we will call "ballast" on board than was convenient, it might conceivably choose that moment to chuck it overboard. Contrary to the habits of ordinary ballast, it would float, being attached to an empty barrel, or what not. The Porthvean man's interest would be aroused at this singular phenomenon, and when the French boat had sailed away, he would row up and haul the innocent bit of flotsam on board, there to investigate at his leisure. The curious discovery he would then make would induce him to hoist his sail and return, to communicate it to Reseigh. What did Paul think of that?
Paul was delighted. The manœuvre by which

Paul was delighted. The manœuvre by which the necessity of actual communication between the craft was obviated, was a stroke of genius, worthy of his own brain. A tidy li'll plan, sure 'nough. But his present function was criticism. The coastguard: how about them? Risk he gloried in; he wasn't the one to shirk that. But daring should go hand in hand with caution. Any fool could blunder into danger. Here were the coastguard; he snapped his fingers at them, but here they were. Bravery was one thing, foolhardiness another; and landing kegs on quay-head under the nose of the look-out man seemed to come under the latter category.

Paul was implored to listen for a bit. The coastguardsmen were not so formidable as he imagined. To begin with, the very boldness of the scheme, running the contraband right under their noses, was calculated to disarm suspicion. Besides, individually the men were disposed to be friendly. The married ones mostly had their little accounts running at Reseigh's shop, same as everybody else in the village. Reseigh kept the amount well before their eyes, but never pressed too keenly for payment, knowing what a struggle the poor chaps had to keep their families respectably clothed on the Government pittance. As for the single men, maybe they appreciated the merits of cheap tobacco and grog as well as anybody else. Married or single, they had a corner in their hearts for Reseigh, and they would not see more than they were forced to see. Still, Paul was right, sharp-witted fellow that he was; one must not obtrude one's little affairs on official notice. He had hit on the crux, toothe conveyance of the goods from the boat to the shore. Now, if Paul wouldn't mind getting up and following, he would show him something.

Reseigh lit a candle, and preceded Paul out of the parlour into the shop, and thence by another way into a passage. At the end of the passage was a door which opened directly on a flight of steps leading cellarwards. At the bottom, another door, which had to be unlocked. Passing through this, they were in

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an e Royal to P eyes expr a spacious cellar, piled to the ceiling with Reseigh's reserve stock of goods-barrels of flour and petroleum, bales of calico, crates of tinned meat, and the like. Paul stared curiously about him.

"Where d'ye s'pose we are now?" said

Reseigh.

"Underground, s'pose," said Paul.
"Ess, we're that; an' above ground too.
There's a c'numdrum for 'ee. Underground an' above ground too-what d'ye make o'

Paul could make nothing of it.

"Come, now," Reseigh prompted. "Where's my shop? On the clift, edn' 'a? Where's this cellar then?"

"I mind 'ee now! 'Tes inside the clift, like-a-thing," cried Paul, delighted at his own

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"'Course 'a es," said Reseigh approvingly. "An'bein' so, 'tes underground an' overground, as I said-under the road an' over the cove. Look 'ee here. Lend a hand wi' this barr'l."

It stood at the farther end of the cellar, in a kind of recess. When it was rolled away, a

blank wall of rough-hewn granite appeared.
"Now," said Reseigh, "what's the clift like, under my shop, lookin' from quay-head?"

Paul recalled its appearance. It rose sheer from the water, and it was faced with granite blocks, to prevent it from crumbling away.

"Very well. Now cast your eye on this stone." He indicated what was apparently a big block of granite, the size of a cottage window, set back a little from its fellows.

"Looks all right, don't 'a? Now watch." His hand groped at the side; his fingers disappeared into a crevice in the masonry; he tugged, and a sudden flood of moonlight poured on their faces. The seeming block was a thin slab, no thicker than a shutter, and like a shutter it had swung out of the wall at Reseigh's touch.

Paul uttered a cry of astonishment, and thrust his head through the opening. There below him lay the cove and the deserted quay, black against a background of silver moonlit sea.

"My nerves!" His head popped back, like a cork from a bottle, and he began to examine the artful contrivance with professional

"My nerves!" He was a mason himself, but in all his experience he had never seen the

"Smart chaps in the auld days, wadn' they?" said Reseigh. "You d' see the fashion of en? Cargo expected; man up here waitin'; hears a signal; opens, an' drops a rope with a grapnel pon the end. Men in the boat below make the goods fast; man above hauls up, pushes the stone to, an' there edn' nothin' to be seen but an empty wall."

Reseigh carefully closed the opening, turned to Paul, and looked him full in the face. Paul's eyes were glittering, and his whole demeanour expressed the liveliest excitement and fascina-

tion.

"Now," said Reseigh, "what d'ye say? Will 'ee join me?"

Would a cat eat cream?

"Shake han's, partner!" he shouted. "Tes

a bargain!"

Reseigh's cold flabby hand was wrung as it had never been wrung before. Then the barrel was rolled back, and they returned to the shop. It was growing late, and further discussion was postponed by mutual agreement. Paul prepared to depart. Just as he was going Reseigh called him back.

"Your gear," he said. "You must have some, an' I work et out like this. Seein' we're partners in the same boat, like, workin' together, there edn' no objection to me supplyin' the tayckle, is there? You'll need et for this li'll business of ourn."

Things were on a different foot-Of course. ing now, and Paul readily accepted Reseigh's

kind offer.

"Edn' no sale, so edn' no debt," said Reseigh. "But et vexes me ef my stock don't tally with my books. 'Tes a wakeness o' mine. So I'll put en down in a reg'lar way, as ef 'twas a debt, just as a matter o' form, an' cross et out arterwards, when the profits come in. You agree to that, don't 'ee?"

Paul agreed. He was always ready to humour a friend's weakness; and he was too full of other things to parley about a trivial matter casually mentioned in a matter-of-fact way. And so good-night to his dear friend and

partner.

Paul strode off, and Reseigh locked the shop door and returned to the parlour, clucking softly with his tongue against the roof of his mouth. He never laughed spontaneously, but on the rare occasions when amusement called for expression, he was in the habit of making this clucking sound.

CHAPTER XVII.

BEFORE parting, Reseigh had exacted a pledge of secrecy from Paul; and faithfully Paul kept it, after his own fashion. That is to say, he made no definite statement of fact; but his conversation fairly bristled with mysterious hints. He could talk of nothing else but the ancient glories of Cornwall, secret hiding-places, smuggled goods, short cuts to fortune, and the amiable and virtuous Reseigh. Directly questioned, he winked and grinned, begging them not to press him to reveal business secrets. Jennifer, who, in spite of the submissive dulness which had come over her, seemed never to let Paul's least word or action escape her notice, found it only too easy to piece his hints together, and read in them a meaning which filled her with apprehension. And then a brand-new set of lines and nets appeared on the scene. Paul would offer no explanation of the portent, but it could only be interpreted in one way, by reference to that source of all evil, that nightmare oppressor of Porthvean's imagination, the big black book on

Reseigh's counter. She saw spectral misfortune creeping up behind Paul's back, while he, frank, careless fellow, stamped and elbowed his way along, scornful of danger. Her heart cried out a warning to him, which her lips would not, could not utter. For a while she suffered in silence, till solitary anxiety grew intolerable, and she confided her fears and suspicions to her father. He, worthy man, was seriously concerned, and felt it his duty, unpleasant enough with the memory of frequent rebuffs still fresh, to take Paul aside and add one more to his oft-repeated warnings against his bugbear, Reseigh. One result was inevitable—an explosion of wrath on Paul's part, and an indignant request that Ben Jose would mind his own business and leave others to mind theirs. There were other consequences. One was, that Paul's acumen being called into question, he threw his vow of secrecy-somewhat tattered already-to the winds, and confirmed every suspicion by boastfully proclaiming the name and nature of the new scheme. Another was that, Jennifer being absent from the interview, the old man blunderingly introduced her name, not seeking thereby to avoid responsibility or shift the blame to her shoulders, but wishing to emphasise his warning by showing that another shared his fears. A third result followed this. Paul, who was in a highly nervous, excited state, sought Jennifer out, and overwhelmed her with reproaches. In truth he forgot himself so far as to grow abusive. She was a meddlesome, interfering maid, like all her tribe. Women! they were nothing but a curse, sticking their fingers into every pie. What right had she to pry into his business? 'Twas she, then, who had egged her father on to pester and insult him with croaking words of warning. Well, he had had enough of it, let her understand that; he didn't put the value of a snap of the fingers on a silly maid's notions. If she wanted to burst the scheme and ruin his fortune, let her put on her shawl and be off, there and then, to the coastguard station. She was capable of that, he didn't doubt.

Red and white by turns, till the red failed to come, she endured the lash with a passive silence which only incensed him more. She disdained to answer, did she? Friends, were they? He flung her friendship in her face,

with an oath to follow.

Then she trembled to her feet, staring wildly at him.

"Paul," she whispered, "you're killin' me! I caan't bear-"

She broke off with a cry, and fled to her

One cannot sufficiently condemn his behaviour; but, to do him justice, he was frankly ashamed of himself the moment after, and Jennifer had scarcely locked her door before he was outside, urgently seeking the forgiveness the poor girl was only too ready to accord. Peace was soon restored. For a day or two Paul, striving generously to make amends, behaved with unexampled gentleness and consideration; and

for a day or two Jennifer was more like the quietly cheerful Jennifer of old than she had been for a long time past.

Adopting for a moment Ben Jose's estimate of Reseigh, and supposing him to be in truth a crafty, far-seeing villain, one might be disposed to wonder that he cared to admit an indiscreet babbler to share a plan the most essential part of which was complete secrecy. But, on pursuing one's considerations on the same imaginary lines, one would be inclined to do more justice to Reseigh's cunning. The hostile attitude of Porthvean, which, in spite of his protestations, Reseigh had never done anything to mollify, effectually closed Paul's mouth to all but Mr. Jose and Jennifer, and these latter, one may suppose, he could afford to despise for an honest inoffensive pair, whose lips were sealed by their friendship for Paul. Only Dummy remained; and Dummy was a negligeable quantity, a mere piece of boat's furniture, physically debarred from blabbing, and conveniently ignorant of the nature and existence of customs laws. The fact of his being Paul's partner halved the risk. All this, of course, is unjustifiable supposition.

There were frequent consultations between Paul and Reseigh. Paul's wits, busy as ever, evolved one or two cunning improvements, calculated to make the plan work with perfect smoothness; and Reseigh accepted the suggestions with many expressions of admiration. One was intended to obviate the danger of finding people about the quay when one returned from an expedition. This was a point to be considered, with boats coming and going at all hours. Now the store-pots were sunk in shallow water, two or three hundred yards from quay-head. If Paul planted his pot some way apart from the others, and if, instead of bringing the goods directly ashore, he sank them by a line attached to a float, close by the side of it, he could safely leave them there till a convenient opportunity offered for landing them.

And there was another scheme, more ornamental than useful, perhaps, but still worth trying. On shore and on sea there would be prying eyes, watching his every movement. He was going to circumvent them, and have a bit of fun at the same time. In addition to the ordinary boat's lantern he intended to carry two others-a red one and a green one. A dark night, the red lantern in the bow, the green one in the stern-and there was your phantom steamer all complete. Now, suppose another boat inconveniently near at the critical moment. And suppose the occupants were suddenly to see, looming out of the darkness, a red light bearing straight down upon them: would they not get out of the way brave and quick, trembling before the worst danger a fisherman has to face—the danger of being run down in the darkness? And suppose that, just as they caught sight of the second light, both red and green were suddenly extinguished, as if the supposed steamer had sunk like a

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static back fascin astor gume Paul hensi stone. And let this happen not once only, but twice or thrice—what a fine tale of a spectreship could be made out of that! And what boat would venture after dark in the neighbourhood of the spot where the apparition had been seen?

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It speaks volumes for Reseigh's simple faith in Paul's genius, that this plan, which another man might have deemed absurdly fantastical, met with his express approval. But, indeed, he never ventured to thwart or oppose Paul in any way—that is, in any visible way. Paul plumed himself, with apparent justice, on having the redoubtable arbiter of Porthvean's destinies completely under his thumb. 'twas grand to parade him up and down, like a tame bear, before the scowling wonder of the town! To march into the shop at the busiest time of the day, and with a beckoning finger spirit him off into the private room, leaving an amazed, whispering crowd behind! Partners? Twas master and man, more like. This the subtle rogue of Ben Jose's imagination? A meek old dodderer, slow-witted, easily led, eager to please. And, mark you, a single man, wealthy, heirless, and without a spark of affection for anyone but Paul. You take our meaning, aha! Golden dreams arise, dreams only as yet, but built, as few dreams are built, on a solid foundation of undeniable

With the first few days of March the fishing began, in an irregular tentative way at first, till in a week or so the weather settled, and every net, line, and pot in Porthvean was in the water, earning money. The time had arrived for the great scheme to take practical shape. The lines were out at the appointed spot, the store-pot was cunningly sunk at a place invisible from the shore; one only awaited the waning of the moon and the letter with the foreign stamp.

The letter came; the expedition was made, and crowned with complete success. There was one critical moment, when Dummy, in the dim light of early dawn, saw a hole open in the harbour wall, and a face appear, white in a frame of dark stone. He fairly yelled with astonishment. The face disappeared, the opening was swiftly closed, and Paul had half an hour in which to abuse Dummy under his breath. Then, as it appeared that no sleepers had been awakened, the face showed again, and the rest of the job was safely and quickly transacted.

But at intervals during the day a farcical incident occurred and recurred on the quay. The actors were Paul and Dummy. Dummy would come down from the street, take his station midway along the quay, opposite the back windows of Reseigh's shop, and stare fascinated at the wall beneath, chattering loud astonishment, and gesticulating bewildered arguments with himself. A few minutes after Paul would hurry down in an agony of apprehension, rate his partner soundly, and haul him

away. In half an hour the mysterious fascination of the wall would draw Dummy back, and the scene would be repeated. About the third time of performance Porthvean began to be interested, slightly amused, and puzzled a good deal. Little knots gathered on the quay, dividing their attention between Dummy and the harbour wall. Then Paul grew frantic, and the fourth time he intercepted Dummy on his way down, ran him back to the fish-cellar, and, without further ado, locked him in.



DUMMY YELLED WITH ASTONISHMENT.

There was one who was neither amused nor puzzled. Steve Polkinhorne, idly lounging as usual on quay-head, saw the first performance of the little drama, pondered over it briefly, and leapt to his feet with an oath. He ran along the quay, and, as he ran, lhe was seen distinctly by two or three to shake his fist at Reseigh's windows. The next authentic news of him reports him sitting in the bar of the "Fisherman's Arms," in company with his partner, John Trembath, drinking deeply, and

detailing in whispers some matter which seemed With successive to incense him greatly. glasses his voice grew louder; fragments of his talk were audible-fragments of rancorous abuse directed against Paul, and not only against Paul (there was nothing new in that), but-oh portent !- against Reseigh himself-Reseigh, to whom, as earthly representative and agent of the Evil One, he had sold himself, body and soul. The landlord of the innnominally landlord, but really Reseigh's tenant and humble servant—heard Reseigh's name coupled with a bad word. This was treason; it must to the master's ears. He quietly put on his hat and went over to the shop. When he returned he was closely followed by Reseigh, who, without uttering a word, fixed his eyes on Steve and raised a sternly beckoning finger. The sight jumped Steve halfway back to sobriety. He stumbled to his feet and meekly followed Reseigh out of the bar. Later on he was observed slinking out of the shop, the very image of a beaten cur. Later still, for a period of days, he skulked and growled in corners, apprehension peeping from behind black wrath in his eyes.

To us, who do not care to tread the noisome crooked ways of a rogue's thoughts and motives, the meaning of all this is not easy to fathom; and we do not wish to undertake the unpleasant task of explaining. But let us, while disclaiming all responsibility, suppose Ben Jose in possession of all the outward facts of the case, and invited to read their inner meaning by the doubtful light of his suspicions and prejudices. What would he make

of it?

Something like this, probably. Steve, a small rogue, attached as jackal to a big rogue-Reseigh-doing all his dirty jobs and risky jobs for him, enjoys in return unlimited credit for brandy, and a measure of contemptuous familiarity and protection. therefore colourably plumes himself on the unenviable distinction of being Reseigh's favourite and confidant, and is weakly proud of his bad pre-eminence. Enters on the scene Paul Carah. Steve, coming into collision with him, and getting the worst of it, conceives for him a violent hatred, which Reseigh sees good to foster. Acting on hints from Reseigh, Steve elaborates and carries out a plan which, he thinks, will have the effect of ruining Paul and driving him out of the place. But Reseigh intends the plan to serve another purpose. For a scheme of his own he needs a sharper, straighter, steadier tool than the thieving, brandy-swilling Steve. Steve delivers his blow; the tool falls into Reseigh's hand, and Steve is straightway discarded. He goes about in comfortable ignorance of this, until Paul's frequent conferences with Reseigh arouse his suspicion. Then he observes Dummy's antics on the pier, and light breaks in upon him. He is supplanted, and by the enemy he thought to have crushed. You know the rest-his rage against Paul and Reseigh finding vent in indiscreet invective, suddenly checked by the appearance of the latter; a stern warning, no doubt, delivered, and Steve reduced to impotent, wrathful brooding over his wrongs. da

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Sheer melodrama, of course; for which, as we

say, we disclaim all responsibility.

CHAPTER XVIII.

A WEEK afterwards, a second expedition was made, equally successful with the first. Then the growing moon put a temporary veto on the proceedings, and Paul, insatiable of excitement, cast about him in search of new fields of activity. The business of fishing, dull and tedious by comparison, had lost its one-time flavour of novelty. He continued to carry it on perforce, but he had sucked all the gay adventure out of it; 'twas a task, a stale routine of which he was thoroughly sick. He began to dream again of the old days of his continental wanderings, and to contemplate a return to them as a possible contingency.

A temporary diversion was afforded by a new scheme, petty and unimportant, perhaps, in comparison with others of his planning, but still sufficiently interesting to absorb his

thoughts for a while.

It arose like this. Paul came home one evening, after a hard day's crabbing, to find Mr. Jose poring as usual over his maps. old man was always prodigal of his ink, and his clumsy fingers were permanently smudged and stained with black. Now Paul had been out after cuttle in the small hours, and consequently his hands were in a worse state of inkiness than Mr. Jose's. One cannot handle cuttle without being besmeared and bespattered with the filthy black fluid they carry for their protection. Paul was tired and hungry. He called for his supper, purposing to go to bed immediately afterwards. As he sprawled at the table, eating and yawning, one of his hands happened to rest in close proximity to one of Mr. Jose's; and the latter made a remark about the identical condition of the two. 'Twas just the thing to arrest Paul's attention and excite his imagination. He was wide awake in a moment, instituting an eager comparison. His wits went to work, and before you could say "knife," a fully caparisoned scheme sprang Minerva-like from his brain.

Ink! Here was another instance of blind, senseless wastefulness. Hundreds of cuttle killed weekly in Porthvean, and the most valuable part of them thrown away. Look how his fingers were stained! Rub and scrub as he might, 'twould be days before the marks would be effaced. What was the essential quality of ink? Permanence, to be sure. Well, then! Could the concoction they sold in shops compare for a moment with this genuine, natural product? Not it; not for goodness, nor for cheapness either. 'Twas the cod-liver oil over again.

Perhaps the closeness of the parallel deterred him; at any rate, for once in a way, he eschewed dazzling possibilities, and kept the new project within moderate and practical bounds. was no talk of making one's fortune; but Mr. Jose need never buy another drop of ink while he lived. Didn't he find that his maps faded after a while? Of course he did, with the mucky trashy stuff he used. Well, Paul promised him that every map he drew after this should be immortal, carrying its outlines, and his fame with them, glorious and undimmed, to remotest posterity. What did he say? Would

he try it?

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Mr. Jose had his faults, but he never failed in his whole-hearted belief in Paul's genius. Try it? Of course he would; and by way of graceful compliment to his paragon, the first map he drew should be the United States—the long-contemplated revised edition, with Columbus, Iowa, assigned its true position among great cities. Paul forgot his fatigue, and went off at once to procure the material; and the very next evening, Mr. Jose took his seat at the table, a clean sheet of paper before him, a pint jug of cuttle-ink at his elbow, and started without delay on the coastline of Maine. other elbow sat Paul, watching with the deepest interest every stroke of the pen, ejaculating an admonitory "Steady now!" at the difficult places, and a commendatory "Well done, auld chap!" when the twisty inlet or what not had been successfully negotiated. When the outline was finished, and Mr. Jose began to fill in names of states and cities, Paul's interest was redoubled. The fishing industry suffered severely; every evening he must be on the spot, criticising, suggesting, tracing old itineraries, with a yarn for each mile.

"How the auld days do come back to me!" was a frequent remark, followed by a sigh and

"Those were merry, bustlin' times.

Then it was-" New Orleans-I never went there. Missed en somehow. Fine place too, so they do tell me. Wish I'd gone." Then an interval of regretful, vacant-eyed meditation, followed perhaps by a panegyrical disquisition on the joys of a wandering life, when a man is his own master-a man, as we say, and no tree, choosing for himself at each cross-road, with no call to hunt for the adventures that throw themselves in his way at every turn.

And at last, one evening, after he had been watching Mr. Jose in silence for some time, he began a sentence with seven pregnant words.
"When I go back to the States—" he said.

The pen dropped from Mr. Jose's hand. "What, Paul!" he exclaimed. "What was

that you said? Edn' thinkin' o' goin' away an' leavin' us, are 'ee?" "S'pose I shall, some time," he replied indifferently, as one might speak of a trip to Henliston. Then, the notion being broached, he warmed to it, and continued with more animation.

"'Course I shall; an' ef 'tes brave an' soon, I shouldn be surprised. Porthvean edn' a place for a man like me, I can see that. Bistly auld hole! No bustle, no fun, no nothin'. I'm

tired o' tryin' to wake 'ee up. You're like Ludlow's dog down here, leanin' agin the wall to bark. Ef I go to stretch my arms here, I belong to knock the walls down. No; I edn' long for Porthvean, uncle; make up your mind to that, an' get the dash-an-darras f ready."

Mr. Jose tried to rub the shock out of his brain, and left a streak of ink on his forehead. "What a sudden chap you are! Goin' to leave us? I dedn' expect—"

Her father's eyes rested on Jennifer. One

knows of what he was thinking.

"Jennifer, did 'ee hear that? Paul's thinkin'

o' leavin' us!"

Jennifer had heard. When Mr. Jose dropped his pen, her fingers had been suddenly arrested (she was knitting), her breathing checked, her whole frame jolted, as it were, with the minute convulsive shock that is caused by a momentary stoppage of the heart's action. But she had not looked up, and instantly she was bending lower over her work, her fingers moving with feverish activity.

"Ded 'ee hear, Jennifer? We'll be brave

an' sorry for that, shaan't us?"

"Aw ess, s'pose," she said, and forced an hysterical giggle, which sounded strangely from her lips.

Paul was hurt.

" You'll be sorry, uncle, no doubt," he said pointedly. "Arter that, I don't care who's sorry an' who's glad."

Whether her indifference was feigned or real, she had overdone it. She lifted her eyes.

"I shall be sorry, too, Paul," she said, quite earnestly-"brave an' sorry."

Paul grunted, only half appeased.

"Thankful to hear 'ee say so," he said, and

bade Mr. Jose go on with his map.

But the incident had the result of fixing in his mind the vague notion he had been entertaining. It took shape as a definite resolution of departure, not just yet, but at some future time, contingent on this and that. One must first see one's way to a dramatic exit. exciting fun of running contraband still appealed Above all, one needed the sinews of war before embarking on a new campaign.

Now it was a matter for uneasy consideration that the generous Reseigh had suddenly grown close-fisted, not to say stingy. When it came to selling him fish, his offers sank to the market level or below it; and he haggled and bargained with Paul as keenly as he did with the no-account fellows of the town. Moreover, what was worse, when the bargain was concluded, the cash was not always forthcoming. There were evasions and oblique references to an account standing in Paul's name, very unpleasant to listen to. And as to the contraband profits, he refused altogether to give any account of them, pleading delay in realisation, bemoaning the badness of the times, throwing himself on Paul's mercy, imploring him to wait a little. All very well; but our

¹ Dash-an-darras is the Gaelic doch-na-dorus, a stirrup-cup; literally, "a cup at the door."

confidence, if not overturned, is considerably shaken. The venture brings us fun and excitement, but we look for profit too. Altogether an unsatisfactory state of affairs. We are loth to abandon the high opinion we have formed of the old chap, especially when we remember how loudly we have maintained it in the face of detractors; but we are grieved and perplexed at this unexpected manifestation of a miserly We make no scene; friendship forbids, and not only friendship perhaps, but also the merest suspicion of uneasiness with regard to the big black book and a recent addition to its contents. Not a debt, we know; we have Reseigh's assurance for that. But his mind is obviously failing; he has been positively short with us once or twice of late; and if he should choose to proclaim it a debt, who could gainsay

About this time, Paul became conscious that he was being watched and spied upon. At first it was merely that vague warning instinct that tells us, independently of our ordinary senses, when the eyes of another are upon us. But presently he began to note that wherever he went, afloat or ashore, Steve Polkinhorne was never far away. He did not obtrude himself; on the contrary, he seemed anxious to shun actual meetings; but there he was, always on the spot, or slinking round it. If Paul went to talk business with Reseigh, when he came out of the parlour he was pretty sure to find Steve in the shop, making pretence to buy a box of matches. If he happened to be chatting with somebody in the street or down by the boats (the taboo had been slightly relaxed of late), Steve was sure to sidle up within earshot. When the Swiftsure put out to sea, Steve's boat put out too; and wherever Paul shot his nets, there or thereby Steve did the same.

Other disquieting incidents were conjecturally traced to the same source. A second time the outhouse was broken into by night. Nothing was taken, nothing destroyed; but the topsy-turvy condition of the place seemed to indicate that the intruder had entered to search for something which he had failed to find. Again, Paul was ready to swear that his store-pot had been hauled up more than once by unauthorised And once, returning about daybreak from a perfectly innocent crabbing expedition, he fancied he saw the figure of a man sneaking off behind the boats. It was too dark to distinguish who it was. Paul hallooed, and the figure broke into a run and fled. An extremely suspicious circumstance, and one which, when conjoined with the other incidents, gave reasonable cause for considerable alarm. Paul was justified in resolving to keep a sharp look-out, and to smash the face of the first man he caught in the act of prying after him.

CHAPTER XIX.

ONDAY night, then !" "Look 'ee here, Paul; I've tauld 'ee often 'nough not to holler like that when we're talkin' business. 'A edn' safe."

"All right, uncle; trust me. 'Tes my way, though, to spake out. A mark o' my natur', 'a

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b'lieve-open an' honest, like-a-thing."
"That's very well," grumbled Reseigh, putting the letter with the foreign stamp back into his pocket; "but 'a edn' safe."

He waddled to the door, and stood arrested

with his hand on the latch.

"Could ha' sworn I shut en home," he muttered. Then suddenly he flung the door open, and looked out into the shop. Paul remained sitting, and heard him address some one in the low distinct tone he affected when annoyed or angry.
"What's doin' here?" he asked.

"Jus' buyin' a box o' matches," came the answer in Steve's voice.

Another voice chimed in-a feminine voice, shrill with irritation.

"Then you med as well buy 'em an' be done," said. "Half an hour you've been plaguin' an' fussin' round, makin' up your mind."
"You have, have you?" It was Reseigh

"Well, just you fit and be speaking now. off. I don't knaw what you're arter, but you'd better look out. I've guv 'ee a talkin' to wance of late. Sim' me I belong to give 'ee another 'fore long. Get what you want, an' be off."

A pause, then Steve's voice again, with a curious expression in it-

"I've got what I want, an' I'm off."

Reseigh came back thoughtful, and sat in a brown study while Paul rehearsed the iniquities of Steve. When he dismissed his musings and sat up, he made a remark à propos of nothing.

"Man with a whip," he said, "don't pay no 'ttention to a dog that comes sniffin' at his

That's so, edn' 'a?"
agreed. The merest pup knew the Paul agreed. meaning of a whip. But what was Reseigh referring to? Anything to do with Steve?

"Aw no, nothin'. Only a fancy that came into my heed," said Reseigh. "But you might keep an eye 'pon the rogue. He dursn't do much harm, but he might give some 'nnoyance, f'rall that. He'll be out o' the way 'fore long, 'a b'lieve. An' now you're off, s'pose. Monday night, an' same auld place.'

"Right," said Paul, and departed.

It was Saturday afternoon, and when Reseigh's summons had disturbed him at his post-prandial pipe, Jennifer was just about to begin her weekly purgatorial task of dusting the parlour. When he returned, he found her sitting in the kitchen; and on the table before her was a dustpan full of shards of broken crockery.

"Hullo!" he exclaimed. "Been smashin'

the cloam?"

"Ne," she said.

"How then?" he asked.

"I went in there," she said, pointing to the parlour door, "an' found this—'tes wan o' the mugs 'pon the chimley-lyin' broken under the grate. What da 'll say, I don't knaw."

"Say? He'll say you're a careless maid to

liv the door open for the cats to get in. That's what he'll say, an' quite right too."

"Paul," she said, "you do knaw so well as I that the door's shut home an' locked from Sunday to Sat'day."

"Pouf! Window, 'course!"

"Window hasn' been opened for years. The paint's in the cracks. 'Tes fixed tight."

Paul began to think, and the more he thought,

the more disturbed his face grew.

"Jennifer," he said, "I don't like the looks o' this at all. Mug smashed an' nobody done et? An' in that room, too? Jennifer, I've a jealous thought there's somethin' wrong. 'Tes allers a token of evil when cloam do smash; but when et do smash of ets own self—"

His sudden silence was eloquent.

"I don't knaw what da'll say," Jennifer repeated. The silly girl seemed to attach more importance to that than to the ominous hints and forebodings which were occupying Paul. He waved her trivial worry aside with

an impatient hand.

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"'Tes for wan in the house," he gloated shiveringly. "Wan of us three; me, or you, or your da. Sim' me, 'a shouldn' be me, not bein' wan o' the fam'ly. But then they mightn' knaw that. Still, don't see how 'a should be me. You don't think 'tes meant for me, do 'ee, Jennifer?"

"No, Paul," she said wearily. "Most like

'tes for me or da, ef 'tes for anybody."

Somehow he felt accused of selfishness.

"I hope not!" he exclaimed. "My word fur 'n, I hope not. I swear ti' 'ee, Jennifer, I'd rather take et 'pon myself, rather than you or your da should come to harm. But there—'tes fullishness, arter all. Don't 'ee worry, Jennifer; 'tes on'y fullishness. I never set no store by these here tokens. Maybe 'tes for the canary, ha-ha! He's wan o' the fam'ly. 'Ess, 'tes for he, an' he'll get the pip, sure 'nough, ha-ha! Plum fullishness, edn' 'a?"

His anxiety for support and reassurance was

patent.

"Fullishness, 'course," said Jennifer, assuming light indifference. "I'm only troubled bout da. He'll be brave an' vexed. How's goin' to keep him from knawin'?"

The problem offered a welcome diversion to Paul's thoughts. He pondered, and easily

found a solution.

"Look! you've got another mug like that somewheres, I'll be bound. Well, then, you fit an' put en in the same place 'pon the chimley. He waan't notice the defference. An' throw the jowds outside, where they waan't be seen. Bistly auld rummage!" he exclaimed, eyeing the fragments with uneasy disfavour.

"Tes cheatin'," said Jennifer, but proceeded to carry out his suggestion without further protest. To give in to Paul, to save her father from annoyance—she asked no more of herself

nowadays.

On Sunday afternoon Mr. Jose took up the Bible as usual, and went into the parlour. No

amount of repetition could rid Paul of the nervous dislike with which he regarded this business of Sunday afternoons; and to-day, after the event of Saturday, he was particularly disturbed. For a while he remained fidgeting about, unable to sit or stand or pace the room for two consecutive minutes; and then, with "'Ere, I caan't stand this. I'm off!"—he seized his hat and went out.

When he returned, he found Jennifer still

alone, and looking anxious.

"Sim' me, da's a long time to-day," she said.

"Somethin' up?" said Paul apprehensively. They said no more, but waited in silence—a silence that grew more and more oppressive and intolerable as the minutes passed. At last movements were heard in the parlour.

"He's comin' out," said Paul, with a sigh

of relief.

The door opened, and Mr. Jose slowly appeared. His face wore an expression of awed solemnity.

"Children," he said in a slow breathless voice; "Paul, Jennifer, I've had a warnin'."

He advanced a step or two, blinking like a man who comes from a dark room into the

light out of doors.

"I was readin', an' waitin'," he said; "an' maybe I'd fallen into a bit of a doze. All of a sudden I woke up, an' there she was. I never seed her so plain before, not sence—well, there she was. An' she was brave an' vexed 'bout somethin', simminly."

Paul and Jennifer exchanged glances.

"Her heed was shakin'," continued Mr. Jose, "an' her lips were movin' quick—she allers did talk pretty fast—but not a word could I make out. 'Spake up, Ellen,' said I. An' she opened her mouth an' hollered—but 'twas all the same; I couldn' hear a word. So I shook my heed, an' her han's dropped down by her side, desp'rate like. So I said, 'What's up, Ellen? Anythin' wrong wi' 'ee?' said I. An' then she up with her arms an' swayzed 'em about, slow an' solemn, as ef she was warnin' me agin somethin'; an' her face was wisht an' anxious, drawed up with trouble, like. An' then, 'twas as ef I'd been dreamin' an' waked up sudden; for all to wance she was gone, like the snuff of a candle gone out."

He paused and looked from one to the other. They were both very pale. Jennifer was sitting perfectly still; Paul was twitching about, biting his nails, drumming on the table,

tugging his moustache.

"Tes a warnin', sure 'nough," he went on; "a warnin' of evil—evil to this house. The Lord send us safe through en! Ef we only knawed—but no: we edn' to be tauld, that's plain. But there's the warnin'."

Paul's suppressed terror burst out in the

shape of intense irritation.

"What's the use," he almost screamed, "o' their comin' to warn us, ef they don't give us no p'ticulars? That's what I want to knaw: what's the use? Ef they caan't do no better 'n

that, how don't they stay in their place, an' not come scarin' folk? What's the good of a warnin' when you don't knaw what you're warned agin?"

"Hush, Paul," said the old man, much shocked. 'Twas a sort of blasphemy. "Don't 'ee talk like that. They do their best, s'pose;

an' we belong to be thankful to them.'
"'Tes all nonsense!" shouted
Paul, fighting his terror with
sounding words. "I don't believe—"

"Paul!" Mr. Jose was actually angry. "Don't let me hear such talk. 'Tes wicked! Who knaws but they may be listenin'? I edn' goin' to stop an' listen to such talk."

Deeply offended, he took his hat and trotted out.

Jennifer's face showed great trouble. She hesitated a moment, and then—"Paul," she said timidly, "sim me you might ask da's pardon presently. He's turr'ble vexed. I never saw him

so vexed."

"Don't care," said Paul sullenly. "He shouldn' come plaguin' the life out o' folk with his bistly auld randigals. Fullishness! Sim' me, he must ha' dreamt et all." He clutched eagerly at the heartening notion. "Ess, 'course, that's et! Dedn' he say he'd dropped off to sleep? An' dedn' he come out here blinkin'? Haha! the auld chap had too much denner, 'a b'lieve. Ess, 'twas a dream, sure 'nough. Don't 'ee think so, Jennifer? 'Twas a dream, wadn' 'a?"

"Ess, maybe," said Jennifer.
"An' you'll ask da's pardon?"

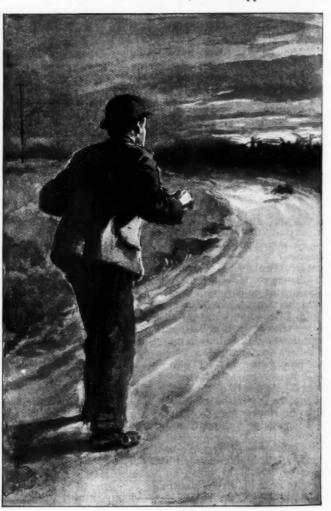
"Ef you d' wish. Anythin' to plaise'ee." He was good-humoured again. "No wonder the old chap was upsot. 'A edn' wholesome fur 'n to go settin' in there. 'Specially arter a Sunday denner, ha-ha! Fat pork an' tatie cake—there's your token readymade."

A pause, and then—"They're wisht things, though, dreams are. They don't mane nothin', but they're wisht things."

At dusk on Monday evening he left the cottage on his way to the cove. The third expedition was to be made that night. He was embarking on it more to please Reseigh, so he told himself, than for any personal pleasure or profit. He was heartily sick of the whole business. For once in his life he had had a disturbed night, with ugly dreams and waking starts. He felt tired and out of spirits, and an indefinite sense of impending evil oppressed

him. As he strode along, he was rehearsing his determination, stronger than ever, of throwing up the game as soon as might be, and returning whence he had come.

Just as he came to the corner where the road turned along the cliff, a small brown creature started from behind a stone, limped across the road in front of him, and disappeared in the



AN OMEN OF EVIL.

hedge. He stopped dead, shivering like a startled horse.

There could be no mistake; it was a hare, sure enough, and it had run across between him and his purposed trip. Nothing of more terrible omen could have happened. And there was no doubt this time; it was meant for him and nobody else. Steve's abortive blow in the dark was child's play to it. Human agency was responsible for that: but this—! And it was the third on three consecutive days. Ominous number! They were for him; all three were for him. The others were vague, but this one pointed definitely. Evil fortune! It rang in

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part diss P well his ears; the growing darkness whispered it,

spoke it aloud, shouted it.

One thing was certain. He must abandon all thoughts of going on. He feared no human risk, but this was different. He walked slowly back to the gate. The thought of a small detail arrested his hand on the latch. Reseigh must be informed of the postponement, or the worthy old man would be wondering what

He swung round and retraced his way, not without some qualms on crossing the spot where the hare had passed. He gained the village, went up the street, entered the shop, and-privilege of intimate friendship-passed, without knocking or inquiring, into Reseigh's private room. Reseigh looked up from his The good old soul was always pottering at his figures; 'twas Ben Jose and his maps over again.

"Well?" he said.

Paul explained. He was sorry to throw the plans into confusion, but there could be no expedition that night.

Oh indeed! And how was that? Reseigh

was curious to know.

There are motives which one does not care to shout from the housetops. In his best offhand style Paul explained that he didn't feel inclined to go out; he was out of sorts and wanted a comfortable night in bed.

Dear me! Reseigh was brave and sorry to hear that Paul was unwell. But a postponement would mean grave inconvenience and anxiety. He was afraid he must trouble Paul to shake off his indisposition and reconsider his

Paul flatly refused. He wasn't going out that night for anybody or anything. Let Reseigh understand that, and make the best of it.

Reseigh blandly insisted. He had every consideration for his partner's feelings and wishes; but it was a matter of business, his business as well as Paul's; and, at whatever incon-

venience, business must be done.

Paul grew testy. One would think Reseigh was a master giving orders to his servant. They were partners, weren't they? Their voices carried equal weight. Reseigh said "Go out." Paul said "Stay at home." As the action rested with Paul, so naturally did the decision. And now he was on the subject, he might tell Reseigh that he was tired of the whole affair, and he had a good mind to withdraw from it, unless he saw a better prospect of profit to himself. Anyhow, he was not going out that night, as he said, for anybody or anything.

Reseigh, still all honey, pointed out that in that case, since Paul refused to perform his part of the contract, the scheme might be said to have fallen through, and consequently the partnership was to all intents and purposes

Paul's temper rose. Very well then. As well now as later on. And, let him tell Reseigh, he was bitterly disappointed in him. He was inconsiderate, he was presuming, and Paul had grave doubts about his honesty. The partner-ship was dissolved; Paul had said it. Let them settle up and part in friendship while they could.

Just as Paul pleased. And they would settle

up at once.

Reseigh got up and went out into the shop, returning immediately with the big black book. He turned over some pages and read

"'To Paul Carah. By gear supplied, February twenty-fourth:—eight pound four shellin' six pence.' Haven't got en in your pocket, s'pose?"

Paul was dumfounded. "But-but that edn' a debt!" he stammered. "'Twas agreed so;

'a wadn' to be a debt."

"'Tes put down for a debt," said Reseigh suavely, "so 'a es a debt, s'pose."
"Edn' nothin' o' the sort!" exclaimed Paul,

angry and alarmed. "'Twas for the partner-

ship."
"What partnership?" asked Reseigh coolly.
"But have I knaw. But "Edn' no partnership, so fur's I knaw. But there's the gear. Where's the money?"

Paul saw a chance for a firm grip round the waist. "Where's my money?" he cried triumphantly. "My share in the profits-pay yourself out o' that ! "

"Profits? What profits?" Reseigh's face

was a blank.

"Smugglin' profits, thou rogue!"
"Smugglin'? Don't knaw nothin' about

"Don't knaw! Thou lemb! Don't 'ee try to putt upon me! I edn' to be putt upon! Pay

me to wance, or I'll—"
"Well?" Reseigh was very grave. "What will 'ee do? Smugglin'? 'Tes agin' the law, 'a b'lieve? I don't meddle wed'n. An' how's goin' to prove et? I don't pay without no proofs."

Paul glared and snapped, a rat in a trap. "Look, Paul," said Reseigh, all gentle suavity, "I'm allers ready to be ave honest to them that be'ave honest to me. You do want to make out there was a bargain between us. Well, my mem'ry's a bad wan for some things, but I'm ready to believe 'ee ef I can believe you're an honest man. But when an honest man do make a bargain, he sticks to en. You do say there's a bargain, an' then you want to break en. That don't look honest, do 'a?"

Paul was utterly bewildered. 'Twas turning

the tables with a vengeance.

"Come," said Reseigh. "You called me a rogue jus' now. Tes hard to be called a rogue, "You called me a but I forgive 'ee. I don't call you a rogue; I call you an honest man that sticks to his bargain. An', sim' me, my mem'ry's comin' back There was a bargain; I mind et now. An' your part of en was that you should go out an' do a bit o' business for me to-night. An' I beg of 'ee, don't say you edn' goin', or my mem'ry's clane gone for everythin' but what's down in black an' white in my book."

His words were gloved in softest velvet, but their grip was of iron. Paul felt himself held fast, unable to achieve the merest wriggle. So this was his meek, submissive ally—this consummate, audacious villain! 'Twas a hard confession to make, but he had met his match for once; and the admission was a leak through

which all his spirit oozed away.

Reseigh continued. "Contrariwise, ef you d' go, I'm like to forget what's in the book. Then we're partners agin, an' the debt's no debt. 'A'll be the biggest haul o' the lot to-night, an' when 'tes safe in my cellar, I'll see what I can do for 'ee. You d' knaw me; I'm easy to deal wi' when I edn' putt upon. When I'm putt upon, I'm hard. Et makes me mis'rable to be hard wi' you, Paul; but 'tes my natur'—forgie me for that."

Paul was staring desperately before him-

Reseigh stood up and clapped him on the shoulder.

"Come, partner!" he exclaimed, "where's your sperit? Honest man, where's your honour? Edn' goin' to give in, are 'ee, an' miss all the fun an' profit? 'Tes profit for 'ee, this time—my word fur 'n; money down, soon's you come back. Edn' afraid o' the risk, are 'ee? Paul Carah afraid!"

He jumped at the sting.

"Afraid, honest partner!" he laughed wildly. "Not though I stand in the face o' destruction, with an honest partner at my heels! Never say die! There's sperit in me yet. An' while there's sperit in Paul Carah, there's confusion to all rogues. Shake han's, honest partner, an' fare 'ee well. I'm off to say."

He gripped Reseigh's fingers till they tingled again; and then, with a rush, he was gone.

St. Fina's Flowers.

THERE'S a legend old and quaint,
Of a little peasant saint
Whose young life of hidden patience brought her
people strange renown;

For the bells began to toll At the passing of her soul,

Swung, men said, by angel-ringers in the tower above the town!

In a cottage dark and dank,
From her couch of rough-hewn plank,
Day by day she watched the dawning, out of sleepforsaken eyes;

And amid the sunset's gleams She had woven golden dreams,

Radiant and pathetic visions of the land of Paradise.

They who marked her sufferings sore, Marvelled, for the Cross she bore Grew each week more sharp and heavy; yet amid

her pain she smiled, Till it passed beyond her strength, And she laid it down at length,

Turned her face upon her pillow, slumbering like a tired child.

> Then they gathered round the bed, Speaking softly of the dead,

As they praised her brave endurance, mingling tears and sad regrets;

Suddenly amid the gloom

Of the hushed and shrouded room

Swept a fresh mysterious perfume as of early violets!

O'er the valley and the wood Wintry silence seemed to brood; Scarce as yet the sap was stirring, not a bird had heart to sing;

In an earth-bound prison kept, Even the dauntless snowdrop slept—

"Whence," they said, "can come this fragrance like the very breath of Spring?"

Then there broke upon their sight
Dewy violets blue and white,
Nestling in those waxen fingers, lying on that tran-

quil breast;

They were scattered everywhere, On her brow and in her hair,

As though loving hands had decked her in her smiling bridal rest.

Then they cried, with one accord, "'Tis a message from the Lord,

Wondrous in His sight and precious, things men deem of little worth;

She has nobly borne the strife, And the beauty of her life

Now is mirror'd in these blossoms lovelier than the flowers of earth!"

Such the legend—yet might we Leave as fair a memory,

Not in vain had been our passage through this weary world of ours.

In the town upon the hill

Her sweet presence lingers still, And to-day the early violets still are called St. Fina's

Flowers.

CHRISTIAN BURKE.

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CINDERELLA.

BY LESLIE KEITH, AUTHOR OF "UNDER ONE ROOF," ETC.



"CALL HER CINDER-ELLA," CAME CLEARLY FROM CAPTAIN THATCHER.

CHAPTER I.

LLA BLAKE was by far the prettiest girl in Melchisford, and no one was at all surprised when she married Frank Trench. Frank, who had inherited a good business from his father, was a very prosperous young city merchant, and though London was his home, Melchisford claimed him too, for he had spent many of his holidays as a schoolboy with his relatives the Bensons.

At that period of his life he had taken no particular notice of Ella, being inclined to class all girls as "sillies" who could not throw a ball or run a race, but when he came back to Melchisford after many years of absence from it, during which he had taken his degree at Cambridge, had travelled a little, and had finally settled down to business, he succumbed at once to Ella's charms. Some people were unkind enough to say that hers was a beauty that would not outlast girlhood, depending as it did upon her delicate, shell-pink bloom, her eyes of speedwell blue, and her yellow hair, rather than upon expression or character; but even these cavillers could not deny that

at nineteen she was very fair to see. She had a helpless, appealing way with her too, a look of fragility and inability to cope with the rougher sides of life that woke her young lover's latent chivalry, and made him long to protect and take care of her. So after a very short wooing, when love ran its course unchecked, Ella pranced out of our lives to share what we all understood to be a very fine kingdom indeed.

Some people are born to re-enact the old fairy stories, while others are destined only to stand aside and look on at their brilliant adventures; but though gentle Mrs. Blake, a widow with a very slender income, shared none of her only child's prosperity, no one rejoiced more unselfishly than she at Ella's good luck. She was very pinched the first winter after the wedding, for the trousseau had cost a great deal, but she made her silent little economies with a smile, and the young couple were never allowed to guess from her cheerful letters that there was any need for them to be made at all.

Only those who knew her well perceived that she went without a drawing-room fire, and wore her old mantle, though the sleeves were far too tight for modern requirements. But we are none of us rich in Melchisford, and are much too polite to take notice of the little wiles with which it is sometimes expedient to circumvent poverty. Most of us are content when, by a little stretching, we can make ends meet; the luxury of tying them in

a handsome bow falls to so few.

That it was Ella's portion, however, seemed Tidings of her greatness beyond doubt. reached us from time to time; Mrs. Benson was their mouthpiece; gentle, shy Mrs. Blake had never anything to say but that when Ella wrote she was well and very happy; but Mrs. Benson, with her delightful honesty, took the freshest pride in Frank Trench's prosperity, and after a day or two in London could describe Ella's new carriage, and the livery of her footman, and the Sheraton furniture, and yellow satin of her drawing-room, just as well and with as hearty an interest as if all these fine things belonged to herself.

"Why doesn't she expend a few shillings on coming to see her mother?" Captain Thatcher growled, drawing his thick grey brows together in a way that made timid people think him quite terrible. He used to say that his frown was his most valuable property, since the fear of it kept us all more or less in awe of him. The dear old man, indeed, took the most conscientious care of our manners and morals, and was the censor and

lawgiver of our little community.

But Ella preferred that her mother should visit her in London, and it was not until her second child was nearly two years old that she

came back to Melchisford.

"Dearest Mummie, what a delightful rest it will be to be with you again in the dear slow old place!" Ella wrote. "I shall bring Jane—she must do without the under nurse-and Spink, but you won't mind, because they will take the children off our hands, and let us have such a cosy time by ourselves. Spink can have the blue dressing-room-you know she wouldn't condescend to sleep with Jane! and I'm afraid you'll have to furbish up my old nursery. What a good thing it's at the top of the house! Babies are dear things, and I love them when they're good, but they make me ill when they cry. Mine do cry a great deal, naughty mites! Frank says you'll think I've grown thin. I suppose it's his way of gently hinting that I've gone off; but we've had such a rackety time lately. there won't be any gaiety to tempt me in sleepy Melchisford. I suppose people will want to call, but mind you don't accept any invitations to tea parties! I shan't bring any evening frocks.

Mrs. Blake was a good deal agitated when Ella announced this visit, and scarcely knew whether to be more delighted at the thought of seeing her child once more under the home roof, or disturbed in case she should not be able to make her comfortable.

She took counsel of a young girl sitting on

a stool at her feet, picking up the dropped stitches in a charity stocking. This was another Ella Blake, young Mrs. Trench's first This was cousin, who had recently lost her only home, and had come to pay her aunt a long visit.

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The second Ella had been less than a week in Melchisford, but already public opinion had pronounced in her favour. Captain Thatcher met her at the station, and she won his approval by travelling third class, and laughing at the idea of getting wet as she sprang lightly up to his side in the high dog-cart.

"I'm not made of sugar," she said, "and I've

nothing on to spoil."

He looked with satisfaction at her neat

waterproof and trim felt hat.

"I thought you'd be a fine lady," he said, "and would send me to order a brougham for you at the Black Swan."

"Why," she said lightly, "I never go in anything grander than an omnibus in London. How nice it is to feel the rain washing your

face! It's such clean rain here!"

It was a very bright, comely, though quite unclassical face the August shower fell upon. She was a slight little thing, not tall and willowy like our Ella; she had rough curly brown hair, rather a sallow skin, and smiling, honest dark eyes, which, with their thick long lashes, were her chief beauty; and moreover she was a friendly little lass who gave herself no airs, though she was possessed of an income of £140 per annum, which is quite a fortune in Melchisford.

We all rejoiced that Mrs. Blake should have so cheerful a companion, and one who could afford to pay liberally for her keep too. But Ella secunda had only been five days an inhabitant of Rosaville when Ella prima announced that descent upon it with her men servants and her maid servants in her train.

"How delightful it will be to have those babies here!" said the guest. "You've never had them before, have you, auntie? But I'm afraid Cousin Ella won't like it when she knows

I am here."

"I told her in my last letter you were coming," said Mrs. Blake with distressed apology, "but I'm afraid she has forgotten—she lives in such a whirl, poor child. However, she will be delighted to find a young companion here."
"Who is Spink," asked Ella, pondering over

"My daughter's maid-a very useful person, I believe; but if Ella could have done without her! There is Bridget to think of, and the blue

dressing-room-

"I know," said Ella quickly, "but I shan't mind a bit turning out; why at Aunt Leigh's (you remember how hospitable she was) we girls used to take possession of the linen-closet when the house overflowed. The shelves made capital berths—it was great fun. And Bridget will let me help her, I know. I love fussing about a house.

So a chair bedstead was placed in a corner of Mrs. Blake's room for the young girl, and the rest of the house was swept and garnished for the visitors' use. Mrs. Frank Trench brought a man servant with her to look after the luggage, but she sent him back to town by the next train. Perhaps she did not greatly care that he should see the modest little roadside villa which had been her girlhood's home. Indeed, it seemed to her to have shrunk into very meagre proportions indeed, looked at with her married

"How pokey it seems!" she said with a laugh when she had embraced her mother. wouldn't have brought so much luggage if I had remembered. Oh, yes, the babies are coming with Jane in a second fly. They are so cross with the journey, I was glad to get rid of them even for ten minutes. Is this Cousin She took the young girl by both hands

and scrutinised her smilingly.

"It's odd that we should have the same

name, isn't it?"

"We've nothing else in common," said the younger girl, looking up with an immense, honest admiration into the beautiful face above

"But we'll get mixed up!"

"Call me Ella minor, it will be true in every

"She's charming!" was young Mrs. Trench's verdict, as she lay back in the easy-chair in the little drawing-room, her mother looking fondly down at her. "And what a useful little creature! Did you see how Franky took to her, and he always cries with strangers. I could have almost managed without Jane if I'd known,'

"My dear, she is your cousin and my guest." "And an heiress in her own funny little way," laughed the young matron. "Well, dear, if she cares to help with the children while I'm here, I'll make it up to her by asking her to come and stay with us and taking her about. I'd be glad to have a companion, for Frank is scarcely ever available now. I tell him we might have been married twenty years, for we're never seen together."

"I wish he could have come with you."

"Impossible!" The words were spoken with a fretfulness that hid some anxiety. can't leave town, he seems so worried. Oh, mummie, I do hate the very word 'business,' it always seems as if it held a threat of trouble in it. But there," she pursed her lips and puffed out a little breath, "I'm going to blow all disagreeables away, and we'll forget everything

but that I'm your childie again.

That she brought a great deal of happiness into her mother's life was plain enough to see, and Melchisford summed up its judgment, after calling at Rosaville, by pronouncing her a very brilliant young woman. We can't produce this special effect in our little provincial town, and we agreed that London life must be credited with supplying the polish. It seemed to lift us into closer affinity with genteel society, to breathe the same air as this charming young lady with her beautiful gowns and her easy manners, and her pretty children be-sashed and be-curled, and duly exhibited by their dignified nurse. Of the other Ella little was seen on those occasions, but then somebody had to make the tea and toast the muffins, and help to get baby into the lace frock which was its company garment, and to curl the yellow wave

upon Franky's rebellious head.

Sometimes at sight of the strange inquisitive faces there would arise a howl from this small man, and then a little dark figure with fireflushed cheeks and tumbled curls would steal in and carry him off consoled. But generally the pageant went off beautifully, the young mother dispensing smiles and pretty phrases, and deprecating the compliments paid to her children, who were pronounced to be perfect little pictures, and who behaved when unmolested as if they were set in gold frames.

Indeed, it was so taking a scene that we all went very often to Mrs. Blake's while Ella was there, and generally were rewarded by some new effect to carry home. Captain Thatcher was the only absentee. He went once, and when asked why he did not repeat his visit, he

said in his queer way-

"When I want to see a play, I know where to go for the real article."

Jim Benson was with him, his arm stuck affectionately through the other's.

"Is it comedy or tragedy you prefer?" he

"Life gives us little choice-now one, now

the other, a mingled yarn."

"Ella is certainly thinner," said the young man, with seeming inconsequence, "but I suppose the nervous hurry of town life has the effect of sharpening the features."

"So have selfishness and fretfulness, and living above your income," said the old man

Jim made no rejoinder; they were crossing the Goose Green where the cricket matches are played, and where nursemaids bring their charges in the safe morning hours. Presently the Captain spoke again.

"If I were a young man—it is only the young whom such luck befalls-and had found the crystal slipper, I should know on whom to

bestow it.

Jim lifted surprised brows. There was no apparent cause for this remark; they had the Green to themselves except for a young girl wheeling a perambulator who came towards But it isn't always necessary to understand the Captain, and when Jim laughed he was perhaps thinking that he had found the slipper and knew the little foot that would fit it.

"Hallo!" The Captain halted abruptly in front of the perambulator, and looked down upon two sunshaded yellow heads. "Where's

their natural guardian?"

Ella Blake looked up with a laugh. "Won't I do as proxy?" she said. "I'm really very careful. Ella is tired and is breakfasting in bed; and Jane-well, Jane found Melchisford dull; she has returned to London.'

"Was that Miss Blake?" asked Jim, when they had walked on. Jim is a barrister, and

only pays us flying visits.

"Yes, convenient things, poor relations. You can suck their blood without any com-punction." He struck his stick once or twice on to the ground. "What's your opinion of a vampire, Benson?"

"Never had a chance to form one."

"Lucky you-the species is by no means extinct. Look here, you don't want any more of an old fellow's company. Go and find your slipperless lady, boy, and see you treat her as a prince should. This is my quarter-deck; must do the proper number of turns."

But when Jim looked back at the verge of the Green, the Captain's erect head was bent, and he was walking with his sailor's breezy

roll beside a perambulator.

Nobody was very much surprised when it was announced at the end of Ella Trench's long visit that her cousin was going back to town with her. Everybody said it was a charming arrangement, especially for the little cousin; it would be so gay for her, such a chance! She had seen nothing of real society; her Aunt Leigh had lived at Shepherd's Bush, an impossible Frank Trench's elegant mansion at

Prince's Gate would be great promotion. Ella minor had been so busily occupied helping to cook and to dust, and wait on the waiting maid, and to feed and dress and play with the children, that she had scarcely had time to think over Mrs. Trench's enthusiastic invitation. But one night, when most of the big boxes had been packed, and the uprooting had begun, she crept from her own little bed, and perched on the edge of the big tent one, under whose canopy Mrs. Blake reposed.

"Auntie, you're not asleep?"

"No, dear."

"Auntie, tell me about London. Ought I to go?"

"My child, you must decide for yourself. You know I love to have you."

"Yes, but Ella-

There was a long pause; and was that a suppressed sigh? Then came faintly from the depths of the bed-

"Perhaps she needs you most."

"I'll treasure up all the funny things Franky says. I'll keep a baby's diary and send it you every week."

Ella's tone had an odd suspicion of trying to be light and airy and not quite succeeding.

The news was imparted to us when we were making a farewell call. Captain Thatcher, as in duty bound, had come to say good-bye.

"It's so absurd"-Ella Trench was addressing the company in general-"that my cousin and I have the same name, and neither of us so much as the choice of another. You should have been more liberal when you had me christened, mummie. As it is, Frank won't call me anything but Ella, though I tell him he might invent a pet name. If you had been a far-seeing mummie, and had given me an extra initial, I might have changed into Ethel or As it is, I am afraid it is Cousin Ella who will have to change."

"Call her Cinder-ella," came clearly from

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Captain Thatcher.

The shell-pink in Ella Trench's cheek deepened. She looked round appealingly, her blue eyes troubled.

"It sounds as if I meant to be unkind," she

said plaintively.
"Nonsense!" came brusquely from the teatable, where the other Ella was filling the cups, and for the first time, perhaps, in their acquaintance she looked disapprovingly at her old friend the Captain.

CHAPTER II.

APTAIN THATCHER did not often go to town, he said he hated a bustle; you can't play the martinet to a whole street of strangers; and even if you do confide your grievances to the "Standard" or the "Daily Telegraph," nobody pays any particular attention. When the Captain addressed us by way of reproof for our municipal misdoings through the columns of the "Melchisford Herald," we all listened respectfully. It was therefore something of a surprise when, in the spring-time, just when there was all that fuss about repaying and relighting George Street, he was seen upon the station platform, portmanteau in hand, and a third-class ticket for Liverpool Street tucked safely in his waistcoat pocket.

"I am going," he explained to the rector, to meet an old young friend, just home from foreign parts, who will, unless I'm very much mistaken, be none the worse of a little advice. Two continents have conspired to make him rich; youth and wealth—the combination is

dangerous, sir, dangerous."

"And what form will your advice take?" asked the rector with a smile. "Will you preach on the vanity of riches?"

"No, sir, I will leave that to you. I will point out the advantage of-going halves." He went off with his most alarming frown, tempered by a smile that nothing could make other than sweet.

"Halves, yes," he chuckled, "that's it, but

I didn't say halves - with me!'

He got first to the rooms which he and John Rutherford—shortly expected from Ceylon—had arranged to share. He spent the waiting time looking up old acquaintances at the Service club of which he was a member, and in pursuing to obscure suburbs the widows and orphans of fallen comrades. This was a part of his London business of which the Captain never had anything to say on his return to Melchisford.

He also went frequently to Prince's Gate; perhaps indeed rather more frequently than Ella Trench quite liked. Her interest in Melchisford was soon exhausted; she did not care in the least about the repaying of George Street, or the dispute about the pew doors in St. Michael's, and the Captain's quaint shabby figure did not fit in at all well with her afternoon teas. She introduced him with a smile of apology to the people who wouldn't mind, and then washed her hands

But her neglect did not trouble him at all; he did his best to talk to his neighbours, and when they turned careless shoulders upon him, he was quite content to look on. The keen eyes under the rugged eyebrows saw many things. Ella did not play the fond mother before this company; the bestarched and befrilled little men were no longer led in to be admired; the mother, and even the wife, were sunk in the fashionable woman. She was wonderfully dressed; the appointments of her room were perfect; it took two gorgeous personages with plush calves to bring in the cake and the tea. Ella poured the latter out of exquisite silver into exquisite china. She chattered in a light high key with a great effect of gaiety, but in rare moments of repose there was a strained look in her eyes, and peevish lines about her mouth that told their own tale to the spectator. The other Ella never appeared at these social functions, and when he asked for her he was generally told she was

But when John Rutherford came home, Captain Thatcher had a programme all ready for him. He was a young man, rather good-looking, but not more conceited than is becoming, and immensely more proud of some indifferently executed water-colours than of the wealth his father and grandfather had made for him. He was no artist, though he would fain have thought himself one; but he was an unspoiled youth, which is both better, and rarer.

"Well," said the Captain, after examining through conscientious spectacles the various bits of the world young Rutherford had caricatured, "you've exhausted your taste for Bohemia, I suppose, and now you'll want to see something of fashionable life."

"Home life would be a greater novelty," said

the young man with a smile.

"Why not combine both? What do you say to boarding for a bit with Frank Trench and his wife?"

"What, old Frank? I meant to look him up to-morrow. But boarding! He's a great swell, isn't he? and his wife a society beauty, I've been told. I shouldn't dare suggest such a

thing."

"Just you put it to him," said the Captain with a mysterious nod, "and see if he doesn't jump at it. But let it come from yourself; Mrs. Frank mightn't like to think it was talked of in Melchisford. You'll have to call yourself a paying guest, you know. That's the way we get over our pride nowadays," he added grimly.

"I always liked old Frank," said Rutherford

doubtfully.

"You'll like him still."

So he did, and somehow to his amazement the arrangement was made, subject to Mrs. Trench's approval.

Ella was rebellious at first, but the one

redeeming quality of her shallow nature was love of her husband, and when she saw the lines of care deepen in his forehead-Frank looked far more anxious and worried than she-she

"Would you really like it, dear? Of course we could say he was visiting us; he's an old friend of yours, and he has no relations."

"There's nobody I'd like better as an inmate, and as he's awfully rich, it wouldn't be mean to take a board from him, but it would be mean to hide that we did it. We must be honest, dear."

"A boarding house! Think of our coming to a boarding house," she said with an hysteri-"Ella, to begin with, and now this cal laugh.

"Cinderella" (he had adopted the name in jest) "isn't a boarder." Then as her silence and her blushes betrayed her, he said sharply:

"You haven't taken her money?"

"Only her barest keep," she faltered. "She gives fifty pounds to mother-that's quite her own doing, of course-and she still has plenty for pocket-money. She won't go out with me, and she hasn't to think about dress. "Oh," she pleaded, seeing that his face remained hard, "indeed, I didn't mean to take it, dear, but you know-I told you, nurse was rude about her

"I gave you a cheque for that."

"Yes," she said eagerly, " and I paid her the

same day."

"I'll pay back poor little Ella to-morrow; and look here-you must never disgrace me again by taking money from a guest. I consented to Rutherford's boarding with us in the hope that things may look up, and we may tide over our difficulties yet; but if I thought I couldn't trust you, I should pay off everybody to-morrow, and send you and the children down to your mother till I could get on my feet

Of course she cried and was forgiven, but she lay awake a great part of the night wondering if she should ever dare to tell Frank of her milliner's and dressmaker's importunities. Alas! nurse was not the only unpaid servant who dared treat the young mistress with disrespect; and yet she had not been brave enough to tell him that when nurse at last "saw the colour of her money," as she put it, she made sure of keeping it by taking it and herself out of

the house.

Frank lay awake, too, as he had done on many a night of late, for bad times, heavy losses, and a too careless expenditure had brought on a crisis in his business which he could not face hopefully. There was a chance of recouping his losses, but he scarcely dared to build upon it. If it failed him, Ella and he must begin the world at the bottom of the ladder again. For himself it mattered littlebut Ella! How would she bear the loss of all she prized so much-the social importance, the flattery of friends, the homage of her little world? It had ceased of late to be his world, and the frivolity of it jarred upon him when

he came home weary and jaded, and anxious for the future. If he had loved Ella less, it might have hurt him more, but if he sometimes wished with a sigh that she would show some comprehension of his troubles, or help him in his efforts at retrenchment, he desired to spare her while he could. To-night he thought, too, with a pang of compunction of the other Ella. Cinderella! the name gave him a twinge —was she really the quiet, contented little thing she seemed, or had Ella misunderstood her neglected her? It was scarcely natural that a young girl should care so little for gaiety and pretty frocks as she seemed to do. Was it because she hadn't the means? His face burned hot in the darkness, as he thought that all these months she had been paying for the bite of bread she ate!

His wife reminded him next morning that they had an engagement for that evening, and he came home unwillingly enough to prepare for it. There was still an hour before he required to dress, and finding Ella engaged he went in search of her cousin. Not finding her in the lower rooms, he asked, and was told that Miss Blake was in the nursery. With that high quarter of his big house Frank had too little acquaintance; life was so hurried and so full, and somehow, when he asked for the boys they were always either out or asleep, and their mother discouraged late visits to their region; it only kept them awake she

To-night, however, the boys were not yet in bed; the door of the night nursery was ajar, and, looking in, he saw two red-nightgowned figures kneeling with elbows pressed into Cousin Ella's lap, and yellow heads bent while they lisped their evening prayer in unison:

> " Now I lay me down to sleep, I pray the Lord my soul to keep."

He listened with bowed head while the little ones repeated their simple petitions. "God bless dada and mummie, and Cousin Ella"; then followed the names of all the household, some of them strange to the master, and Franky commended his "lellow" cat, and Geordie his "own, own dicky bird" to the same Divine protection, "and take care of us and make us both good boys." appeal ended with a little rush.

Ella looked up while there was a scramble for the best place on her lap, and two voices were demanding a story; and perhaps she guessed at the shame the father felt that it should have been left to another, and she almost a stranger, to lead these young hearts to confide in the All-suffering Love, for she said with

"Here's a very great treat, boys. Dada has

come himself to tell us a story."

It was the happiest hour he had spent for a long time. At first he was almost as shy of the boys as they were of him, but when he warmed to his work, piling up thrilling adven-

tures in which giants, and lions, and fairies figured largely, they forsook Ella's knee for his. He felt the pressure of their little heads, their breath upon his cheek; he saw the pink bare feet, the toes curling up in the warmth of the fire, their earnest eyes searching his face, while he stood in the fashionable throng, and gave the proper conventional answers to the proper conventional remarks. Even when he remembered in the carriage to ask his wife what had become of the children's nurse, and learned the truth, he could not be very angry. It was so supremely good for Franky and Geordie to have such a friend, and, of course, as Mrs. Frank pointed out, Ella was only looking after the monkeys till somebody suitable could be got in nurse's place. The under housemaid really did all the work.

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"Come back to-morrow," said the nursery people when Frank had to tear himself away; "come back to-morrow, dada, and we'll play at

Before he left Frank laid an envelope on the girl's lap as she sat in the wooden rocking-chair

by the high fender.

"Ella, I can't thank you, but my wife has told me of your kind loan to her. I'm afraid she has been a careless borrower, but she will be wiser another time. It's a husband's business-and pleasure-you know, to keep his wife's purse full."

She saw that he was trying to take the matter lightly, but she could not respond. The colour came up hot in her cheeks; she tried to say something-to repudiate the idea of a loan-but he put his hand for a moment on her shoulder, and she only said "Thank you," huskily. After all, there were other ways.

Next evening there was another visitor to the nursery, but it was not the expected dada, who was dining with a big person in the city; it was the next best, however, an old gentleman who could do growly bears, and tigers, and runaway trains to the satisfaction of the two young gentlemen who reigned there. Nobody minded his slipping upstairs after he had had enough of Mrs. Frank's drawing-room entertainment; he was an'old friend of Miss Blake's; in that careless household few noticed his comings and goings, though he was watched and waited for in the rooms behind the staircase gate.

The Captain did not leave the drawing-room alone that day, he had a friend with him.

"You've seen one side of the medal," he said; "now I'm going to show you the other."

He led the way to the top of the house. There was a very large noise proceeding from the nursery, and the Captain had to thump loudly on the door to be heard.

"I'm coming in," he announced.
"Oh, you can't!" Ella laughed back. "I'm Gulliver, and the Liliputians have pinned down my hair, and they're sitting on me!"

"Then it's time this expedition came to the rescue." He boldly opened the door. Ella was on her feet in an instant; the Liliputians,

sprawling on the floor instead of their prisoner, looked reproachfully at the tin soldiers who

had been set to guard her.

As she tossed her long hair out of her eyes they met those of a young man who stood

smiling in the doorway.

"Young people," said Captain Thatcher, "this is Prince John Rutherford, newly home from Fairyland."

"I've come to live here, you know," he said,

looking straight at Ella.

"Yes," she murmured, blushing for her

deshabille.

"And, I say, I hope you'll let me come up here sometimes and have a romp. I should like it awfully. I'm pretty good at games, really."

This time it was Franky and Geordie who said yes. They accepted him with the infallible

instinct of their age as a comrade.
"Who is she? What's her name?" the new chum asked eagerly when at a safe distance. "She seems so jolly."

The Captain stumped downstairs in silence.

At the last step he turned-

"She's Miss Ella Blake to you," he said dryly. "I call her Cinderella."

CHAPTER III.

T was August, and as Ella Blake lifted the kitchen window, and wished that with her own two little red hands she could push away the grim area wall, and the depressing view of the dust-bin that fronted her, her thoughts went back to that date twelve months

Just about this time she had first seen Melchisford. How fresh and pretty it looked, the little gardened town, all the purples, crimsons, and golds of autumn glistening under the soft rain which dripped off the old Captain's wideawake, and shone upon the stout mare's flanks as he drove the newcomer along the quiet streets and between the green hedges to Rosaville. A year-oh, surely it was a

lifetime!

There was a jingle of cans, and the cry which is meant to announce the morning's milk, but might serve for anything else, was heard along the sleeping street. The man heard along the sleeping street. The man clattered down the area steps, and with a "Morning, miss," deposited his can upon the sill and clattered up again. Ella shook a fist, so to speak, in the face of the past, and sternly took up the present. It was no dream after all. She was alone in the big kitchen, for six weeks before all the servants had fled; they had no tie to the house, except the tie of wages; and when sickness invaded it, and the master was laid low, it was who should scuttle out fast enough. They counted it a mercy to have secured their due before the crash came that almost ruined Trench, Ferrier, and Co., and, for the time being, turned the poor young chief's brain. If you would reap kindness in this world you must sow it carefully; Ella

Trench had scattered no seed, and at the time of harvest her fields were bare. People talked of the big commercial smash-a day's wonder-and forgot it, as no doubt they forgot the sufferers too. They were at their fishing, shooting, yachting, and mountaineering, those butterfly friends, and, in the stifling August weather, pretty, lively Mrs. Trench was sitting red-eyed by her husband's bed, and hour by hour hearing him pour out incoherently the burden of his pain. What he must have suffered while she was feverishly pursuing pleasure!

Among the grave thoughts of the other Ella—the kitchen Ella—there was one that always gave her heartening. When the crisis came, and the children were sent to their grandmother's care, she had supposed their mother would go with them, but Ella had turned on her fiercely when she made the suggestion.

"Leave Frank, my husband, when you know he lies too ill to be moved! What do you take

me for?" she cried.

"Indeed, I beg your pardon," said the girl very humbly, and she bent and kissed her cousin. Frank's wife might not be the wisest nurse for him, but she had taken him for better, and now, as by a miracle, was ready to accept the worse too. "I will never prejudge again," said the little cousin very penitently.

Ella proving faithful according to her lights (though she could never be trusted to administer the medicine or shake the patient's pillows into comfort), Cinderella took a greatly lightened

heart to her own task.

Perhaps she had seen and known more than anyone else, the girl who belonged to the household and yet was not of it, taking no share in its struggle for rights or scramble for pleasures. She had heard the unabashed complaints, for who minded the companion? she had been compelled to listen to gossip that made her cheeks burn with fire; she had seen Spink appropriate her mistress's dresses, declaring she must pay herself, since she wasn't likely to see her money any other way. Tradesmen had grown insolent as their demands remained unanswered. Oh, by the side of that scorching experience of vicarious shame the emptiness of the great house was comfort and peace.

A nurse presided over the sick room, a charwoman (Cinderella paid her secretly out of her own little purse) came daily to clean the steps and scour the pots and pans; there was another helper too, whom our kitchen maiden had at first tried to snub, and failing that had been fain to accept as a co-worker. John Ruther-ford had refused to leave the house when trouble overtook it. There had been a great many romps in the nursery, and a great many talks with the amateur nursemaid from the time of his introduction in April to the time of Trench and Ferrier's failure in June, and when that event befell it was natural for those two to take counsel together.

"Of course you must leave," she said. "Have you secured rooms, or are you going to stay with Captain Thatcher at Melchisford?" Her voice was a little wistful.

"I'm going to stay here," he said.

"But you can't!"

"Why not? I'm a boarder."

"It will be impossible to make you comfortable," she said, looking distressed, "and

besides -- besides --- "

"No, I won't give additional trouble," he said, as she hesitated. "I'll get a bed outside, you know, so that there won't be any bother about putting me up; but I'm coming every day to help. I've knocked a lot about the world and done things for myself, and I'm really pretty handy, though I shouldn't be the one to say it."

She knew how important his board was to the embarrassed couple, and it was not for her to put difficulties in the way, though it meant more cooking if he were coming to meals, and

she could only do simple things.

"It will cost you more if you have to sleep out," she said, "and I'm afraid you won't like

the dinners here."

He answered her gravely that the room he had secured was a very cheap one, and that as for the dinners his tastes were of the very

simplest.

She was forced presently to own that he immensely lightened her burden, if it were only by his cheeriness and his man's simple common sense. At the darkest hours he inspired the watchers with hope, and Ella Trench came to lean upon her husband's old comrade with a certainty that he would not fail her, as her own summer friends had failed her. When there was nothing he could do for the kitchen Ella, he could always lighten the despondency of the forlorn Ella in her forsaken drawing-room.

But he was as handy as he had modestly professed to be; he was butler, footman, nurse, and a hundred other things, and saved the little cook so many an hour's drudgery over the fire, by the dishes he ordered from a restaurant and the delicacies he brought with him in paper bags and fruiterers' baskets, that she was forced

to remonstrate with him.

"You are spending all your money," she said. "I don't know what the Captain will say. He doesn't approve of extravagant people."

"We'll go down on our knees and ask

forgiveness together."

"I don't buy hothouse rarities at fabulous

prices.

"I wonder who pays the charwoman?" he said innocently. "She did mention that—"

"Mrs. Bates had no business to gossip," Cinderella said haughtily. "Besides, Ella is my cousin."

"Frank is my oldest chum."

She was forced to break down and laugh.

"Well," she said, "I must forgive you, I suppose, since he's getting better, and, after all, you are very young" (oh, how old and sage she was), "and you can work and make up for what you've lost by helping these poor things."

"I'm not very old," he assented, "neither,

I think, are you.

"Oh, I mean to work too," she said cheerfully. "Frank and Ella will go to Rosaville, of course, till he grows strong, and can see to his affairs, and then I'll look out for a place. This is a capital chance to qualify as a lady help, or a help without stickling for the lady, which I prefer."

"We might take service together," he said.
"I'm sure I could get an engagement as

footman."

But Cinderella received his suggestion coldly. "You would be too extravagant," she said; "a thoughtful footman always saves up to become a butler."

"And a butler looks to a snug public-house as his goal. He generally marries the cook to that end, but you know you would hate keeping

a public, Cinderella."

"I don't see what I've got to do with it!"

she said hastily, and with rosy cheeks.

But, of course, she knew what she had got to do with his future before that odd time of willing, loving service came to an end. She had learned his worth in the hour of trial, as he abundantly knew hers, and when he asked for her heart she gave it into his keeping, and her little red hand as well. He honoured that little hand for the rough things it had done for love's sake.

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We were all delighted in Melchisford to hear that our young friend had secured a lover; the secret was not imparted, even to Frank and Ella Trench, till they were safely housed at Rosaville, and by that time the young couple, with Captain Thatcher's connivance, had been quietly married, and had gone off together into the unknown. They reappeared, however, in the world of ordinary folks some weeks later, when they came to pay Captain Thatcher a By that time it was public property that John Rutherford was exceedingly rich—indeed, rumour added to his fortune every day; but, for the credit of our town be it said, there was not a soul in it who grudged the young wife her good luck. She herself was the last to hear of her husband's prosperity. By his wish it was kept from her till the honeymoon was over, and she was beginning to feel quite matronly. She took it very quietly after all.

"I thought I had married a poor man," she said reproachfully, "an embryo footman. Aren't you ashamed of yourself? Are you very rich?"

"I'm afraid I am—rather."

"Then," she said, taking hold of his coat, and looking up at him—"you'll let me settle my money on Aunt Blake? She'll need it, you know, with Ella and the children to keep. It's £144 7s. 2d. per annum. Perhaps," her eyes twinkled, "it would look better to keep back the seven and twopence, and make it an even sum."

"Say £300," said Prince John, "and think of the laces and ribbons you can buy with the

7s. 2d. !"

But by-and-by she turned to the old man who stood by frowning and smiling. She put her arms about his neck and kissed him as a daughter might. "So it was you," she whispered, "who discovered the Prince!"

Ella Trench was the other absorbing topic at Melchisford tea-tables that winter. She came only second to the bride. She played so beautifully the rôle of devoted, self-forgetting wife and mother, and dressed the part to perfection; her gowns were of the simplest and her golden hair was braided plainly. She looked none the worse; and since there was one person who would never allow that she was wholly acting, what right had we, who had not seen her in her hour of adversity, to judge her?

Frank Trench's affairs did not turn out so hopeless as had seemed probable, perhaps because a generous friend gave time and means to his rescue. He looks forward cheerfully to a new beginning; but when he pictures home, it is not Prince's Gate, but a far more unpretentious little house where a tired man can come back to wife and children, asking no better society than theirs.

As for Princess John Rutherford—we call her Cinderella still. But then hers is the only grown-up fairy-tale which has touched our

lives.

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More about
"A Haunted Castle in Tyrol."
Readers of the "Leisure Hour" will recall an interesting article which appeared in a late issue, called "A Haunted Castle in Tyrol," and to such

Haunted Castle in Tyrol," and to such who may think it worth their while to act on the advice of our contributor, and pay it a visit, the following information concerning the noble family from which the castle derived its name may add to the interest which antiquaries would feel in visiting an historical castle which played a prominent part in the feudal days of Tyrol. The family of von Reiffenstein (formerly spelt with one "f") belonged to the very old Tyrolese nobility. Locally known by the additional designation of "Ritters von Reichbourg," they were members of "The Tiroler Adels Matrikel," an order which is only open to those whose family has been ennobled for 300 years. By his marriage with Eva Trautsohn von Sprechenstein, Baron Ortulf von Reiffenstein came into possession of Wolfenthurm and other castles in the neighbourhood of Bötzen, but appears to have forfeited his possessions at the time of the Crusades to the Holy Land. About 1470 the family were driven out of the Tyrol, and settled in the neighbourhood of the Hartz mountains, where the head of the family, Baron Philip von Reiffenstein, was admitted to the ancient order of "Alt Limbourg" (still in existence), and received from the Emperor Maximilian 1 a fresh patent of arms, viz. "Two hegoats with their fore-feet resting on the summit of a mountain," which are the family arms to this day.

It was his brother Emmerich who, together with the Barons von Molnheim and von Stockheim, took such an active interest in the reformer Luther; and when Luther was forced into temporary seclusion after the Diet of Worms, Baron Emmerich sheltered him in his own house, and finally acted as one of the party who forcibly abducted him to the Wartburg.

During the famous peasants' war Dietrich von Reiffenstein took a prominent part against the peasants, and great cruelties are ascribed to him after the suppression of the revolt. It is Baron Dietrich von Reiffenstein who is supposed to haunt the ancestral home, and this belief is firmly held in

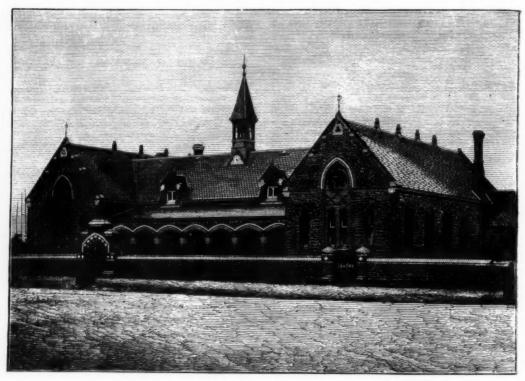
the neighbourhood of castle Reiffenstein. Shortly after the restoration of order, about the year 1595, the family once again lost their possessions, and settled down in Werniegerode, where they remained until about the beginning of the present century. Isolated members of the family served with great distinction in the Austrian and German armies of the eighteenth century, and one in particular, Baron Friederick von Reiffenstein, commanded the Austrian army at Guastalla. August Friederick von Reiffenstein, too, led the troops of Frederick the Great at the terrible battle of Liegnitz, but was mortally wounded in the hour of victory. Early in the present century the family of von Reiffenstein settled in British territory and became British subjects. The great grandfather of the present Baron was adjutant of the 98th Regiment of Foot in the Peninsular War, while his brother Louis is at present actively engaged in India.

The great family desire is to once more possess the ancestral possessions in the Tyrol, and negotiations are still pending between the Prince of Thurn and Saxis and Baron Wilhelm von Reiffenstein with this object in view. From the year 1470, when the family had first to relinquish their Tyrolese possession, the castle passed through various hands, until finally it was ceded to the ancient and noble family of Thurn and Saxis by the Government.

Near castle Reiffenstein is the castle where Blondin found Richard the Lion-hearted imprisoned, and there seems little doubt that the then Baron von Reiffenstein was an actual aider and abettor of the Duke of Austria. There is a beautiful chapel belonging to the castle that contains a very valuable picture of the "Madonna and Child." The castle still carries with it many old feudal rights, including the sole right of an Alp whereon to feed goats and sheep. Human bones may yet be found in the dungeon, as a member of the Reiffenstein family who visited the castle a few months ago can testify. An old legend says that the ghost of Baron Dietrich will continue his ghostly midnight patrol until the erstwhile owners once more regain their ancestral home or become extinct.

AUSTRALIAN SKETCHES.

THE EDUCATION SYSTEMS.



A STATE SCHOOL, ADELAIDE.

PERHAPS nothing impresses one who visits
Australia for the first time more than the
attention given to education. In the cities
and even country towns he will see commodious
school-buildings, while the residents in the
lonely bush have usually a neat schoolhouse
within easy access.

In all the Australasian colonies education is compulsory, and in most of them it is free. In New South Wales and in Western Australia, however, fees are paid to a certain extent. In the former colony, for example, free education was granted in 1894 to only 18,000 children out of a total of 180,000 on the rolls. Parents who can afford to pay fees are obliged to do so.

can afford to pay fees are obliged to do so. The teachers are well paid. In Adelaide and its suburbs head teachers receive salaries varying from £420 to £450 a year, and in South Australia generally the salary of a head teacher varies from £150 to £300 a year. The lowest salary paid to any assistant teacher in South Australia in 1895 was £78, and this was very exceptional.

The cost of primary education in 1893 in Australasia, taken as a whole, was £4 15s. 5d. per scholar; and the cost per head of population was 10s. 8d. Within the last two or three years, however, a retrenchment policy has been pretty generally carried out in educational as in other matters.

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The instruction given in primary schools is of a very high order. Indeed, until the retrenchment policy began to be applied, many branches of education were taught which are now, more properly, regarded as extras.

The Teaching of History.

I think it right to refute here a statement which has more than once been made in well-informed quarters in this country, and seems to be very generally believed—namely, that English history is not taught in the primary schools of Australia. In the year 1894, 57,113 children were examined in English history in the public (primary) schools of New South Wales, and of those who were examined, 39,660

passed. In the public schools of South Australia a complete course in English history is carefully taught, the text-books being Messrs. Longmans' "Historical Readers." I have before me as I write four books on English history which are used in the primary State schools of Victoria, three of these being Messrs. Nelson's series "The Empire," and one of them Messrs. "Historical Reader." Australian Blackie's boys and girls learn something of the story of the mother-land! I have still in my possession the notes of a visit I paid to a school in a bush township 380 miles from Sydney. One of the subjects on which the teacher examined the school, from third class up, was English history. The answers would have done credit to any class of boys or girls in England, and the scholars of the sixth class wrote out an excellent summary of the reign of Queen Victoria.

One defect in the primary edu-Technical. cation of Australasia is, unfortu-Education. nately, a defect too common in our schools at home also. It is the neglect of technical education. In the State schools of Victoria, for example, where carpentry may be taught as an extra subject, there were thirteen pupils in this branch in 1893, and in the previous year there were none at all. I do not forget the fact that the city of Melbourne has its splendid Working Men's College, where the older scholars can receive technical instruction. But it is the reproach of too much of the primary education of Australia that it is not sufficiently practical. All boys cannot be clerks or professional men, yet too often their primary and even secondary teaching almost unfits them for anything else.

On the question of religion Religious in education, so far as denomina-Education. tional teaching is concerned, the Australasian colonies are almost absolutely unanimous. Except in Western Australia, no State assistance whatever is given to denominational schools. Not only so, but the spirit of secular education is carried so far, that, in most of the Colonies, the Bible is not permitted to be read during the regular school hours. South Australia permits a teacher to read the Scriptures to his scholars where the parents desire it and request it, but such reading must be done in the morning before the regular work of the school begins. In Victoria, the teacher of a State school is not allowed to read or teach the Bible in the school under any circumstances whatever. Permission is given, however, to a minister of religion or other authorised religious teacher to give religious instruction before or after the regular school hours. This permission has only been availed of to a limited extent, most clergymen thinking it too much to expect the children to come before 9.15 for a Bible lesson, or to remain after the school is over, when their companions have, perhaps, gone out to play. They also think that Scripture teaching given to weary children is not of much profit, and tends to become a penalty

under such circumstances. Moreover, in the "bush" or country districts, where there are several schools within the bounds of a single parish or congregation, it would be impossible for a minister to overtake them all. Many clergymen, however—and the number is on the increase—think that they should use such opportunities as they have of giving Bible teaching in the State schools. This is done, I am happy to say, in no sectarian spirit, and in many districts of Melbourne and other parts of Victoria, ministers of all the Protestant denominations co-operate heartily in this work.

At the same time, the ministers and leading people of all the Protestant churches are practically unanimous—with the exception of a section of the Independents—in desiring that Scripture lessons should be given as part of the regular school teaching. With the view of enlightening public opinion on the subject, a Scripture Education League has been formed, with the Bishop of Melbourne as its President. The request of the League is that the Scripture lesson-books which are used in the "public schools" of New South Wales should also be used in the State schools of Victoria.

These lesson-books have an interesting history. They were originally prepared for use in the Irish National Schools. The compilers of them were certainly representative men. They were Archbishop Whately, Dr. Murray, Roman Catholic Archbishop of Dublin, and Dr. Carlile, a leading Presbyterian minister of Dublin. There are altogether four of these Scripture lesson-books. Two of them consist of extracts from the Old Testament, and two of extracts from the New. The lessons are chiefly historical, with extracts from the Psalms, Proverbs, and the Sermon on the Mount.

The New South Wales these Scripture lessons are taught as part of the regular school curriculum, and the inspectors examine the scholars in them as in other branches.

And how does this system work, which, in the neighbouring colony of Victoria, and in New Zealand, is so fiercely resisted by the advocates of secular education? On this point, I have my information and observation at first hand. In the year 1895 I had an interview with the Under-Secretary for Public Instruction in New South Wales, Mr. Maynard. He informed me that it is almost unknown for parents of any denomination to ask for their children to be exempt from this "general" religious instruc-tion. I asked him if there was no difficulty on the part of some of the teachers. was that the teachers know what their duties are to be, and if anyone objects, then he need not become a teacher. In addition to this "general" Scripture instruction, clergymen or other religious teachers very generally give "special" religious instruction to the children of their own denomination and others who desire In this "special" instruction, too, the teacher holds himself responsible for the order and discipline of the class.

It is but right to add, that on a visit to the famous Fort Street School—the oldest school in Sydney—I learned from the head teacher, Mr. Turner, that in his school almost every Roman Catholic and Jewish child asks to be exempted from the general religious instruction. On the other hand, in the country school, which I referred to above, the head teacher told me he had never had an objection from Roman Catholic parents to their children receiving the "general" instruction from the Scripture lessonbooks. Half the children in this school were Roman Catholics. "I have been teacher in three schools," he said, "and I have never had

out of the 142,000 children who were examined there were only five thousand who were not examined in Scripture. In other words, about three per cent. of the children examined in the New South Wales schools take advantage of the conscience clause.

Facts like these should dispose of the bogey which the Secularists and the daily papers of Melbourne have conjured up to frighten the people of Victoria against Scripture teaching in their State schools—the bogey of sectarian strife. Sectarian strife is practically, if not absolutely, unknown in New South Wales in regard to the Scripture lessons.

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UNIVERSITY GROUNDS, MELBOURNE.

such an objection made by anyone." In this school I heard the children examined by the teacher, not only in history, but in Scripture. The children had evidently been taught not only to answer, but to think, and to be thoroughly interested in the Scripture narrative. Here were Protestant and Roman Catholic children uniting together, reciting those facts of the Christian faith which all Christians believe.

In 1894 there were 142,405 children examined by the inspectors in the public schools of New South Wales. Of this total under examination 137,591 were examined in Scripture and moral lessons, and 104,640 passed. That is to say, It is often urged that the Sunday-schools are sufficient for the purpose of Bible teaching. Yet, according to the official "Victorian Year-Book" for 1894, the proportion of children between the ages of six and thirteen who attended Sunday-schools was only about 50 per cent.

The overwhelming majority of the Christian people of Victoria support the platform of the Scripture Education League. They do not ask for denominationalism. They ask for the Scripture lessons as used in New South Wales. They would even allow teachers to claim exemption from teaching Scripture lessons,

where they have conscientious scruples. Surely the "platform" is a moderate and reasonable one. The late Chief Justice Higinbotham, whose name is still honoured in Victoria, said, in one of his speeches, "Those who advocate a purely secular system appear to me, if I may venture to say so, to separate from education that which cannot be separated from it." He further added that in the endeavour "by absolute prohibition to exclude a religious tone from your secular instruction, you main education of a portion of its chief value." Yet it is this maimed one-sided education that is at present given in the State schools of Victoria.

In the State schools of Western Australia half an hour, with provision of a conscience clause, is devoted daily to Bible reading.

There is a pleasant feature in the primary education of South Australia worthy of notice here. It is the issue by the Education Department of a little monthly magazine or paper called "The Children's Hour," containing short stories, poetry, anecdotes, and other matter for reading and recitation. Space is given to contributions from the children themselves, and the whole forms a bright and readable magazine.

In the matter of secondary Education. or intermediate education there is considerable diversity in the Australasian colonies. New South Wales, Queensland, Western Australia, New Zealand, and Tasmania have secondary, grammar, or high schools, supported or largely assisted by the State. In Victoria and South Australia the secondary or grammar schools are supported almost or altogether by private enterprise. In Melbourne, for example, there

¹ During the year 1896 a school paper was commenced by the Education Department of Victoria. In this paper Dr. Clifford, of London, who visited Melbourne last year, found the rooth Psalm. Largely on account of this, he seems to have come to the conclusion that the education system of Victoria has been maligned by those who call it "secular." The answer is, that even such a small concession is, no doubt, due to the persistent efforts of the Scripture Education League and to the greater sympathy of the present Education Minister with religious teaching. At the recent general election for the Colony of Victoria, more than thirty members have been returned to the Legislative Assembly pledged to support the platform of the League.

are three leading boys' high schools—the Scotch College, the Church of England Grammar School, and Wesley College; while there are also two well-equipped girls' high schools—the Presbyterian Ladies' College and the Wesleyan Ladies' College.

In university education Australasia maintains a high standard. The professors receive large salaries, and in most cases have good houses also provided for them. Among the best known professors at Sydney have been Dr. Smith and Dr. Badham. Melbourne University has had such men in its professorial staff as Professor Jenks, Professor E. E. Morris—both known by their contributions to literature—and Professor Baldwin Spencer, who has made most valuable scientific investigations in the interior of Australia, and is also Secretary of the University Extension movement.

In both Sydney and Melbourne Universities there are affiliated colleges. In Sydney these are Anglican, Roman Catholic, and Presbyterian. In Melbourne there have been four blocks on the university grounds allotted for the purpose of such colleges—one to each of the following churches—Anglican, Presbyterian, Wesleyan, and Roman Catholic. On the three former fine buildings have been erected, which serve as residential colleges for students, where tutorial instruction is also given.

Women are eligible for degrees at all the Australasian Universities.

Taking Australian education as a whole, it will bear comparison with that of any English-speaking land. If the defects which I have mentioned were removed, it would be second to none.

C. H. IRWIN.

In the article on Australian Politics and Public Men which appeared in the February part, reference was made to the fact that at the Federal Convention in Adelaide in 1896, the name of God was excluded from the new Constitution. Since, then, however, the writer has learned that the Federal Convention which met at Sydney in 1897 has decided that the name of God, and national dependence upon Him, shall be recognised in the Federal Constitution.

C. H. I.

IN THE TROPICAL FORESTS.

UMBRELLA ANTS.

THE beauties of tropical scenery, and the wonders of life in the forests of those regions, are well-worn subjects, and have employed the pens of writers of many classes, from the dry-as-dust naturalist, whose only interest is in dissecting every animal, bird, or insect he can come across, to such word-painters as Charles Kingsley, who, fortunately for the

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world at large, did "at last" reach the fringe and outskirt of his long-dreamed-of El Dorado, which he depicted with a delight and enthusiasm that fairly carry away his readers. But they are inexhaustible beauties, and infinite in variety.

To take insect life alone: no life is long enough for the study of it, and no description can give an idea of the multitude of creatures that make their homes on every tree and shrub, and under every slowly dying leaf that falls in the evergreen forest. The air is full of butterflies, moths, and flies; while, on the ground, and under the ground, go ants, and beetles, and spiders, and frogs, and toads, and creeping things innumerable—a vast army that no man may number.

Alas! that I have no pretension to the science of the naturalist, and can only tell, in plain language, something of what I have seen during a six years' residence in Central America; three of which were spent in its densest forests, where the sight of a white man was a thing to

be noted.

Of all insects the most interesting are the ants; and it is to be hoped that some one duly qualified for the task will, some of these days, undertake to write the life-history of the most important of their tribes; for, by their intelligence and perfect organisation, they take rank above all their kind, and are well worthy of the closest and most careful observation.

The umbrella, or "wee-wee" ants are in some ways the most remarkable of all the race; and as I happen to have an intimate acquaintance with their interior economy, it will be well, perhaps, to begin with an account of their manners and customs: how they build their nests, store and keep their food, and

organise their vast armies.

The name of "wee-wee" is a mystery, but so the negroes call them; though why they do not know themselves. The Spaniards simply call them by the generic name of "hormigas, or ants. Along the forest paths the great mounds of earth they throw up are conspicuous enough, and from them radiate well-beaten roads, four or five inches in width, and running There they do no harm; but in all directions. when they make their nests near a garden or plantation, it becomes a question which is to survive, the ants or the garden, for one or the other must be destroyed. Their food almost entirely consists of leaves of trees and other plants, and so numerous are they in a well-established colony, and such indefatigable workers, that they will strip a good-sized tree, such as an orange, in a single night, carrying off the spoil, cut into pieces about the size of one's thumbnail, into their nests, there to be stored for future use in a manner I will describe when we come to the structure of their houses.

It was my misfortune on two occasions to find strong colonies of these ants within measurable distance of where I had to make my garden; so there was nothing for it but to dig them out bodily, or give up the hope of vegetables. The process of digging was a laborious one, as in one instance over 250 cubic yards of earth had to be moved; but it certainly gave me a close acquaintance with their ways and habits.

They are divided into four classes—queens, drivers, workers, and builders. The queens are nearly as large as hornets, with well-developed

wings; though why, it is hard to understand, since they are always found in the interior of the nest, and devote their time and attention solely to the propagation of the race. drivers, or officers, are nearly half an inch in length, and are armed with formidable nippers in their jaws, with which they can inflict a sharp bite; quite sharp enough to cut through the skin of one's finger. They are absolutely fearless, and will attack any enemy, however large, without hesitation. They do not work themselves, but run up and down the roads, when the workers are out, keeping them in order, and seeing that all goes well with the procession. The workers, about one-half the size of the drivers, cut the leaf, and carry it in their mandibles, held perpendicularly over their heads, to the nests, whence the name of "umbrella ants."

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The builders, as I have called them, because it is difficult to conceive what else they do, are the size of the common red garden ant of this country. They always accompany the workers on their expeditions, and, I believe, carry into the nests minute particles of clay, with which they line all the galleries and passages, as well as the actual nests themselves, until they look as though they were cemented and smoothed by the careful hand of an expert mason. ants do not always select a tree near their abode on which to work, but will often march to and fro, quite a quarter of a mile or more, to one that suits their taste. Once they have made up their minds to strip a certain tree, nothing but death will stop them. Often and often I have watched the negroes and Indians trying to drive them away from, say, a favourite orange-tree, with flaming torches of dry palm-leaves. Running these over the ants' road, close to the ground, millions of them are burnt to death, whilst the survivors shelter in the grass, or hurry back pell-mell to the nest. This process the niggers call "swinging," but it is no good whatever, for if you go out in an hour or so, you will find the undaunted ants hard at work on the very tree they were turned back from.

Some faint idea can be formed of their numbers, when it is remembered that the whole of this road to the tree, perhaps nearly half a mile long, is densely thronged with the multitudes going out empty, and returning laden with their umbrella-like burdens; whilst thousands and thousands will be swarming in the doomed tree. They have a strong objection to rain, and when they are caught out at work by a sudden shower, they incontinently drop their loads, and scuttle off home. When this happens—which is not often, for they are wonderfully weather-wise—the whole road will be found strewn thickly with bits of leaf.

It is a very easy matter to prove that the vast army is under proper discipline, for the drivers are constantly running up and down the line, giving their orders, which they communicate in some mysterious manner by touching heads for an instant with the ant who is to receive the order. If you carefully watch the individual

so touched, you will see that he stops, or turns back, or hurries on faster, as the case may

be-generally the latter.

But the clearest proof of their discipline is to place some obstacle they cannot easily pass, such as a log of wood or a big stone, across the line of march. There is at once a jam of ants on both sides, and they run about in utter dismay and confusion. Instantly the drivers come tearing along from either side in a state of frantic excitement. Arrived at the impediment, they run over it, round it, and under it, if they can; and having found out the best way out of the difficulty, speedily lead off the host in proper order. Remember, that until the drivers have duly investigated the cause of the block, not an ant tries to pass the obstacle.

When the colony is established on a level piece of ground, a central perpendicular shaft is made, some 8 inches in diameter and 6 or 7 feet deep. This is for ventilating and draining purposes only, and is never used for ingress or egress. If the ground slopes, the shaft is horizontal; the mouth of course being at the bottom of the hill. From the perpendicular shaft, commencing at the bottom, radiate galleries, like the spokes of a wheel, set at a slight angle; these will be about 30 inches long, and about 18 inches one above another. At the end of each series of spokes a circular gallery is made, forming, as it were, a set of wheels, one above the other. In, or rather above, these circular galleries, the nests, or dwelling-places, are constructed; oval in shape, and about a foot long. The narrow end of the oval is downwards, and opens into the roof of the gallery; and, as the spokes always slope slightly towards the shaft, however heavy the tropical rains may be, no water can enter the homes and breeding-places of the ants. Once I tried the experiment of diverting a rivulet of water into the upper part of one of the nests, hoping to drown out the enemy, and to economise labour; but it had not the slightest effect on them, for it never penetrated into a single nest.

When all the ground comprised within the first series of wheels is filled with nests, more radiating spokes are run out from the circular galleries, and more circular galleries made at the end of these; and so on indefinitely, until a space of perhaps a hundred square yards or

more is occupied.

When all the ants are at home, each dwelling will contain many thousands of them: queens, drivers, workers, and builders living together,

apparently in harmony.

In each nest will be found a quantity of greyish, half-dried pulp, with occasionally a few pieces of green leaf mixed in it. The pulp is presumed to be the leaves, reduced to this state by mastication, for no other trace of them can be discovered. Within the pulp, which is honeycombed with holes, are found the eggs

and newly hatched young; these latter in their early stages of existence being quite white and

soft.

Though the wee-wees live chiefly on leaves, they do not altogether eschew "flesh food," as the vegetarians call it; for I once found a small tree-frog in one of their nests, with most of his hind leg eaten away. They have also a great liking for maize, when it is ready shelled for them, and will carry off the corns with great ease, holding them over their heads in the same fashion as they do the leaves. What they do with it when they have got it home I am not prepared to say; but most probably they eat it at once, as no trace of it was found in their nests, though they managed to rob me of a considerable quantity. I well remember my surprise the first time I became aware of this taste of theirs. Sitting one night in my hut, I happened to glance at the corn-barrel, and beheld streams of corn, as it were, slowly running down the outside. Inspection showed that the wee-wees had smelt out my store, and were swarming in the barrel. They were quickly singed out with burning pieces of paper; but the barrel thenceforward had to be secured by some sacking tied tightly over the top, until the nest was destroyed. Night after night they would return to the barrel, but finding there was no getting at the corn, speedily departed.

The bull-frogs are great devourers of these or

any other ants large enough to be worthy of their notice. When we were digging out the first nest at the beginning of the wet season, when the frogs emerged from the damp mud in which they spend the time of drought, they would sit round the excavation at dusk, in considerable numbers, picking up with wonderful quickness the drivers, as they ran about in angry wonder at the destruction of their homes. Quick as they were, the big ants would, every now and then, give the frogs a sharp nip on the passage down their throats, and it was most comical to see the fat, unwieldy things jump all-fours off the ground, and kick out their hind legs in a very ecstasy of pain. It behoved us who dug to guard ourselves as best we could against the bites of the enemy. Of course, one tied one's socks over one's trousers, and paused every now and then to brush off the intrepid foes, who gallantly swarmed up one's nether garments to the assault. Occasionally an ant would get within the fortifications, despite of every precaution, and, doubling up himself, drive his nippers deep into a tender spot, with the result that the victim jumped almost as vigorously as the bull-frog. The result of my digging was the same in both cases: when about three-parts of the nest was dug out, the ants that remained alive suddenly decamped one night, and were seen no more. I suppose they had come to the conclusion that it was

no good to fight against the fates. Anyhow,

I was left to cultivate my garden in peace.

E. W. WILLIAMS.

AN HOUR IN AN ICE FACTORY.

TE hear much about cold storage in these days, but there are not so very many who know how it is managed, or realise the extent to which it is used. We, read of shiploads of frozen meat, but it is not only our ships that have their refrigerating apparatus for carrying carcases and cooling larders. You find it in nearly every large town, at most of our seaports, and in many of our inland markets. The time seems to be due when all food, animal and vegetable, will come within its grip. The system has been adopted by our railway companies and other carriers, by several of the large wholesale traders, and in the retail trade, by our butchers, fishmongers, and other provision dealers, whose "chill room," as they call it, may be merely an ice-safe, in which the ice is not in contact with the goods.

To suppose that these cold chambers are solely for foreign and colonial produce is a mistake. The home-grown and home-fed are just as common in them. The best Scotch and the finest Southdown are stored in the cold larder side by side with the biggest Australian and the smallest Canterbury; they are treated in exactly the same way the day or so before consumption; and they look so much alike to the non-professional, that they may easily be mistaken for each other, as they not infrequently

are.

A storage place on a large scale is interesting in many ways. You find yourself in a room, perhaps 50 feet square, or more, with the goods stacked and lying about as in an ordinary warehouse, the only difference being that the air is cold-much colder than it appears, owing to its being dry-and by the electric light you see that the walls and roof are covered with glittering white crystals of heavy hoar-frost, which are thickest on the beams above and the pipes around. Room after room you go through, all cool, none uncomfortably so, but some very much cooler than you think, until you look at the thermometer; for so well is the apparatus in hand, that you can have any temperature you please, and have it different in every room.

On one floor you may find a stock of cheeses kept at 40° F.; in the adjoining room there may be sheep from the Argentine at 20° F., and fine sheep too—big fellows weighing 50 lb., or more, beautiful in colour, pink in the lean, white in the fat, and stiff as the property joints in a pantomime. Some of the things you meet with, kept fresh in this way, are most unexpected—fresh cream, for instance, from a Somerset farm, in the familiar churns, frozen so hard that when you knock it with your knuckles, it feels like stone; and in this state it remains for months, in reserve for the summer strawberries or the

winter coffee. In one store we have come across a couple of West Indian turtles, that have been there for more than three years, standing on end against a wall, waiting to be called for. Big things these, looking as life-like as a turtle can look, hard and dry as if made of crockery, and so heavy that when you shoulder them over, they fall on the floor like slabs of wood.

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One of the completest of these storage places is at Cardiff, near the Great Western station, alongside the branch line. This has grown considerably since it began, and it had good reason for its beginning. There was a demand for ice in Cardiff, owing to the steam trawlers delivering their catches of fish there; the natural ice, coming in from Norway, fluctuated so much in quantity and price, that the trawlers found a difficulty in getting supplied; the frozen-meat trade, too, was increasing, and there was a call for cold warehouse room, the consequence of which was the formation of a company to make pure ice for the fishermen, and provide cold storage for the provision

people.

To make ice takes about a couple of days. You enter a sort of cold kitchen, in which the ice is cooking. The floor consists of any number of trap doors. One of these is lifted up, and below is a tank, and in it an iron frame containing nine copper moulds; and through the tank, between and around the moulds, a current of brine is slowly flowing. The moulds are full of water gradually solidifying into a twohundredweight block of ice. The floor is full of these tanks and frames, all of them in different stages; in some the water has been but an hour or two in the moulds, in others the freezing is just about finished. You see one of the frames lifted out by the overhead crane. It is plunged into water for a minute or two, lowered on to a tipping-cradle sloped over at an angle, and out of each mould shoots a block of ice much as you see it shot from a cart on to the pavement, only that the block is a regular slab. Close by is another sort of freezing arrangement, in which more transparent ice is made, in bigger

For the fishermen the ice has to be crushed. A block is slid along the floor to the lift, and you accompany it to the next floor, where it is swung out into a sort of mill grinding with big teeth, which crack it and crush it until it falls like heavy snow into the sack that is waiting for it below. In these sacks it is taken away in the boats, to be thrown as packing into the boxes as the fish are caught, and keep them cool and sweet for market.

You enter the freezing room from below; the storage you must approach from above. You

go up in a lift to the top of the building, and are dropped down another lift to the bottom of The lifts are large, and travel a sort of well. fast; they are worked to carry 2,400 carcases from the carts to the cold rooms in an hour. The well of the central lift is the only ventilation; thus no currents are formed, and the

heavy cold air remains undisturbed.

On every floor, on each of the four sides of the shaft there is a door leading to the cold rooms; and on every door is an arrangement for switching on the electric light as it is opened, and switching it off as it is closed from the outside. In every room there is a thermometer, let down a little shaft of its own from the tank room overhead, which is hauled up and checked every hour to assure a suitable temperature being maintained. Some goods, such as fruit, cannot be frozen at all; locally killed meat must only be chilled to begin with; but imported meat can be kept as low as 18° F. And this is in large quantities, for there is room, among other things, for 60,000 sheep and 300 sides of beef. One room is full of pheasants and other game, making a brave show against the white background gleaming under the electric light; in another room are poultry and rabbits by the hundred; another is full of butter, both Irish and colonial, some of which has been here for six months, at a cost for storage which will only add a halfpenny a pound to the retail price. On the ground floor is a large place which is cleared out in the winter and decorated, and used as a real-ice skating rink.

On your return in the lift cage, you seem to be coming up out of the Arctic regions, and you wonder how it is all done while the hot sun is blazing overhead. One thing is evident, that it is a matter of experimental science to begin with; the theory coming first, and the practice

following after.

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The apparatus consists of two distinct systems of circulation, one of ammonia and one of brine, running alongside one another only at one place, that place being the inside of a multitubular boiler, used for the very reverse of boiling. Takean ordinary locomotive boiler, exceptionally strong and well-fitting in its joints. Through the tubes where the fire generally goes you run your brine, through the interspaces where the steam and water ought to be you run your ammonia; and arranged like this, your boiler becomes a refrigerator.

Ammonia is chosen because it is one of the most powerful heat-absorbers known, and will vaporise at a temperature of 30 degrees below zero F. at the ordinary pressure of the atmosphere. Brine is chosen because it can be made

so strong as not to freeze until it is below zero F., that is, in ordinary parlance, at more than 32 degrees of frost. And both have the additional advantage of being cheap; the ammonia, be it understood, being liquid anhydrous ammonia-that is, compressed ammonia gas, and not ammonia dissolved in water, such as you buy at the druggist's for

cleaning clothes with.

The theory is simple enough, and so is the practice. At one end of your refrigerator you slowly admit the ammonia. As the liquid enters it expands into vapour, owing to its being released from pressure, and in vaporising it absorbs heat from the tubes and from the brine within them, just as all other liquids absorb heat when passing into the gaseous state. At the other end of the refrigerator your pumps are going, sucking out the ammonia vapour, compressing it on its way, and passing it on into a condenser consisting of coils of tubes submerged in water.

The ammonia gas thus treated gives off the heat absorbed when it ceased to be liquid, and the heat produced is carried off by the water. This reduction of temperature, added to the effect of the pressure of perhaps 150 lb. to the square inch given by the compression pump, turns the ammonia again into the liquid state, ready for admission to the refrigerator. Thus the circulation is completed, the ammonia being used over and over again as a liquid expanding into gas, to be compressed into a liquid and again expanded. And at every expansion it absorbs heat, and at every compression it parts

The brine circulates as if it were water. For ice-making purposes it is driven direct into the freezing room; for dry-storage purposes it is pumped up into a tank at the top of the building, whence it travels through pipes around all the rooms, until it returns through the refrigerator to be pumped aloft again into the tank, its temperature gradually decreasing as its flows on its round, until you can regulate it according to the vigour with which you com-

press the ammonia.

Two other little matters are worth mentioning. To keep your refrigerator cool you submerge it in a tank of brine. To keep your ammonia pump cool you jacket it with water, which, together with that surrounding the tubes in which the ammonia is liquefied, you use again in the surface condenser of the steam-engine that drives your pumps; for, of course, the machinery throughout is worked by steam, absurd though it may appear for you to keep a fire going to make ice.

W. J. GORDON.

WILLIAM PENGELLY, F.R.S.1



From a photograph by H. J. Whitlock, Birmingham.]

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DENGELLY of Torquay, explorer of Kent's Cavern and other places of ossiferous deposits, at Brixham, Bovey Tracey, and elsewhere, is a name familiar as a household word to geologists and to antiquaries. But he was a man also of wider reputation and higher character, as this memoir by his daughter, Hester Pengelly, very fully displays. A geologist truly he was of special industry and attainments, but he was also a man of great personal worth and of singular attractiveness. Many who only knew of him as a geologist will now admire him and love him on account of his many accomplishments, his constant beneficence, and brilliant humour. Among the wits of the Victorian epoch, as among the men of science and letters, must be included William Pen-

With the exploration of Kent's Cavern at Torquay his name was first known and will be most widely remembered. In that place, and connected with that work, he spent the chief part of his life. Torquay owed much in many ways to Pengelly. He founded a museum there, and for many a year gave lectures on geology and other subjects gratuitously and out of love to the topics and to the peop!c. But his main concern was with Kent's Cavern, with which his daily duty lay, and of which he had official charge from the British Association. Grants of

money were each year voted to him for this charge, and these amounted to £1,800 in all. Well did he discharge these special duties. When, in 1874, a testimonial was proposed in recognition of his long and valued services to science in connection with Kent's Cavern, Mr. J. E. Lee, the treasurer of the testimonial fund, said that "if anyone wanted to meet Mr. Pengelly, he had only to put himself on the Babbacombe Road between four and five o'clock in the afternoon, and Mr. Pengelly would be sure to be met either going to or returning from Kent's Cavern." This hour was certain, but at all hours he was busy there, and working hard, without the least idea of remuneration or special recognition of his work. At the meeting held for presenting this testimonial, consisting of an illuminated address and a handsome cheque, Mr. Pengelly said:

"It had been very pleasant to him to do the work in Kent's Cavern day by day now nearly nine years, having begun on March 28, 1865. He had endeavoured to husband the means at his disposal as if the money was his own. He had the pleasure of spending five hours a day for the past nine years on Kent's Cavern work; and whilst his work in the cavern had been considerable, that at home had often carried him into the morning hours. He had in his house 6,320 boxes of bones, and he hoped that many would derive profit from the study of his private collections, as well as from the public work which had always given to himself the most intense pleasure."

¹ A Memoir of William Pengelly, of Torquay, F.R.S., with Selections from his Correspondence, edited by his daughter. Hester Pengelly, with a summary of his scientific work by Professor Bonney, F.R.S., F.G.S., Hon. Canon of Manchester. John Murray, 1897.

The whole proceedings at this meeting were most gratifying and satisfactory. Among the subscribers to the fund were all the members of the Committee of the British Association, who had entrusted the work to Mr. Pengelly, and also all the chief Fellows of the Geological Society, the Professors of Geology at Oxford and Cambridge, and many others of high distinction in branches of science not purely geological; or eminent in the social world, such as Sir W. Armstrong, Sir John Hawkshaw, Charles Darwin, the Duke of Argyll, the Duke of Devonshire, Baroness Burdett-Coutts, and Sir W. Tite, then in his last illness. It was the latest signature of poor Sir W. Tite, after which he asked for no other letters and ceased to attend to business of any sort. His closing act of consciousness was that which signed the cheque for the testimonial to his friend, William Pengelly. The pecuniary value of the testimonial was not unappreciated; but far above its value was Pengelly gratified by seeing the recognition of his work and services attested by

so many distinguished persons.

It is a singular thing that while so many detailed accounts of the work in Kent's Cavern have been given, including the annual Reports

for about sixteen years to the British Association, almost every written record of his work has appeared in local and little-read journals. There are papers in the Transactions of the Devonshire Association, in the "Geological Magazine" and "Geological Journal," in the London Royal Institution Proceedings, in the Royal Society's Philosophical Transactions, and the Journals of multitudes of other societies. Many a time has the present writer listened to eloquent and humorous statements of Pengelly's work, especially concerning Kent's Cavern, as at the British Association meeting at Brighton in 1872. The mere catalogue of Mr. Pengelly's papers contributed to various Journals and Transactions occupy several pages of print in an appendix to this memorial volume. Yet when he was in his old age asked by an American friend to publish a small book about Kent's Cavern, and about his researches in ossiferous deposits elsewhere, this was what he wrote in his reply: "I have not abandoned the idea of publishing a book on Kent's Cavern; but I am an old man, having my hands full of work." And to another correspondent he said, "I have more writing on my hands than I shall ever get through." The book

In its absence no one could supply a better substitute than Professor Bonney, if he could command time to study the papers communicated to the various journals and magazines referred to

by Pengelly had to be for ever abandoned.

in the present appendix.

The number and variety of distinguished persons who knew Pengelly and visited Kent's Cavern under his guidance will surprise every reader. Among them were the Emperor Napoleon III and his son the Prince Imperial; the sons of the Prince of Wales, Victor and Alfred, with Canon Dalton; Sir John Evans, Rajah

Brooke, John Bright, the Baroness Burdett-Coutts, the "Red Princess" Mary of the Netherlands, and a host of others, whose letters, or extracts from them, are given, besides the longer letters and greater correspondence of Mr. Peach, Sir Charles Lyell, and other naturalists. These are less likely to please the "general reader," though most valuable and full of interest for geologists and men of science.

Here is the note of Princess Mary of the

Netherlands, dated April 4, 1865.

"Princess Mary thanks Mr. Pengelly for his letter, and for the beautiful volume of 'Lyell's Geology.' The Princess recalls with much pleasant recollection the delightful months which she spent at Torquay, and the many geologising and julygising hours for which she was indebted to Mr. Pengelly."

Several years before this the Princess Mary of the Netherlands, afterwards Queen of Holland, when only eighteen years of age, had been at Torquay at the same time as the Baroness Burdett-Coutts and some princesses of the Russian Imperial family, all of whom became pupils and friends of Mr. Pengelly. The friendship of the Baroness Burdett-Coutts, began at this time, was continued and strengthened till the end of his life. So thoroughly did she honour and trust him that, besides great personal benefits conferred, she made Pengelly her almoner for dispensing her beneficent and

charitable gifts to others.

It must be remembered that Mr. Pengelly, although so long a resident at Torquay-fortysix years or more—was only a naturalised Devonian, and was really a Cornishman by birth and earlier associations. He has himself told this part of the story of his life in some chapters of charming autobiography, the interest of which makes every reader regret that he failed to keep a diary or to preserve any details of his career and pursuits at Torquay after he had become known to the world. was born at East Looe, in Cornwall, in January 1812, the son of a Cornish skipper, with whom he passed his early years cruising about as a seafaring man, and spending his life in adventures and experiences of a kind far remote from the scenes where he afterwards became known to the world and acquired his fame. His first marriage was with a Cornishwoman. Having come much in contact with members of the Society of Friends, notably with the Fox family at Falmouth, he became a Quaker. His Cornish career is recorded in the memorial volume with much detail. It is a mistake, therefore, to describe him as of Quaker origin or ancestry; in fact he had little regard for ancestry of any When, in his later years, he was written to about the Pengelly ancestry, and told that he belonged to the same family as Sir Thomas Pengelly, Chief Baron of the Exchequer in 1726, he took no notice; and to another correspondent, who told him that the parish church of Whitchurch, near Tavistock, was a great home of the Pengellys, he said, "That church is rich in monuments, but I have never seen it." From Cornwall he brought his love of the sea and of

seafaring folk, his love of music, and his love of religion and of religious people, truth being his object and aim through life, whether as regards science or Scripture, the books of God in Nature and in Revelation being certain at last

to be found harmonious.

In his second marriage, after losing his children and being separated from his early Cornish ties, he married a member of the Society of Friends, the mother of Hester Pengelly, who has edited this memorial volume, and to whom it is affectionately dedicated. All who ever came in contact with Mrs. Pengelly admired and honoured her for her own amiability and accomplishments as well as for her being the sympathetic and able helpmeet of her husband.

It was at the Bath meeting of the British Association in 1864 that I first met Mr. Pengelly. The President that year was Sir Charles Lyell, and besides geology the meeting was one largely devoted to African subjects. Dr. Livingstone was there, Bishop Colenso, Captain Burton, and Speke, and many other African travellers and explorers. The sad occurrence of the accidental death of Speke on the day before the expected controversy with Burton will long be remembered. Some years later, at the Plymouth meeting, I happened to have lodgings in the same house with Pengelly and his family. On the first morning I found on the table a note from Pengelly, asking me to join their party at breakfast. I gladly did so, and witnessed the customary family worship. Pengelly read with much devoutness a portion of Holy Scripture, followed by a short season of meditation after the manner of the Friends. The impression upon a stranger was great, and I felt that I was in the presence of a true Christian man, whatever his opinions might be as to some matters of controversy then much discussed. From that Plymouth time I was year by year more attached to Pengelly, and enjoyed his appear-

ances at each British Association meeting, By his proposal or nomination I was in due time elected to the Council of the Association, of which I had been a life member since 1834, the same year that Edward Forbes joined. gelly was not a member till 1856, but he had brought himself into intimate relations, not with geologists and anthropologists only, but with the leaders in every department of science. Hence we both thoroughly enjoyed the jubilee meeting at York in 1881. The last time I met him was at Scarborough in 1889. It was a pleasant time, though I was grieved to see him so frail in health and so little qualified to take part in the Newcastle meeting of the Association held in September of that year. The trials and sorrows of his declining days I knew, and his own personal ailments, yet he continued cheerful and genial as ever. But the end was drawing nigh. He died in March 1894. No one knowing the man could be surprised at the tributes paid to his memory when the news of his death became public.

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"Letters of sympathy came to his family from all parts of this country, from the Continent, from America, and from the colonies and possessions of England throughout the world. All bore witness to the strong affection he inspired by the nobility of his character, his fearless love of truth mingled with profound reverence for all that is held most sacred. Clergy and Laymen of the Established Church, Presbyterians, Members of the Society of Friends, Leaders of the various Nonconformist Bodies, and Roman Catholics agreed with perfect unanimity in their estimate of his simple and firm faith, strong moral sense, kindliness, and unselfish devotion to the welfare of others, and freedom from ambition."

But we must pause here. A book containing the story of the life of a Cornishman in the early part of the century, and tracing the career of a man of science from the days of Sir David Brewster and Hugh Miller down to those of Tyndall and Sir John Evans, can hardly fail to be one of the most interesting volumes of the season, and is of lasting value.

JAMES MACAULAY, M.D.

Science and Discovery.

MODERN ALCHEMY.

The subject of the transmutation of chemical elements, and particularly the transmutation of silver into gold, has lately been brought so prominently before the public, that a brief statement of the facts referring to it may be of interest. The chemical elements, as everyone knows, are substances which cannot be decomposed into simpler forms by any means known to science. Just as all words can be broken up into the letters which compose them, so all substances can be separated into certain elements; but when this has been done, the resolving process cannot be carried any farther. An increasing number of

chemists, however, believe that these elements are compounds of a unique primary matter, and if this were established, there would be grounds for thinking that the transformation of one element into another is within the bounds of possibility. Further support is apparently given to this belief by the fact that certain elements exist in more than one form, an instance being afforded by the element carbon, which occurs as diamond, graphite, and lamp-black. Considerations of this kind lend a certain amount of presumptive evidence to the claims of alchemists; but, in spite of that, it can be stated positively that all attempts to convert one element into another have hitherto proved failures.

The latest alchemistic pretensions have had their origin in the United States. About twelve months ago Mr. E. C. Brice, of Chicago, made application at the United States Patent Office for a patent of a process to manufacture gold from antimony. The patent was refused, whereupon a test of the process was demanded. The test was conducted by three assayers of the

United States Mint, under Mr. Brice's directions, and the only result was to find that all commercial antimony contains traces of gold, some of which was recovered by the process. More recently a claim has been put forward, by Dr. Stephen H. Emmens, of the discovery of a body intermediate between silver and gold, and indistinguishable by ordinary tests from the latter element. Dr. Emmens has established a laboratory for the manufacture of gold from silver by his process, and it is alleged that six ingots of his converted metal have been sold to the United States Mint as gold. It may be taken for granted that the officials of the Mint knew what they were purchasing; the only doubtful point is where the metal came from. Emmens says he manufactured it by his secret process; chemists say it probably came from the materials used in the process. The matter must rest here until there is more information to base an opinion upon.

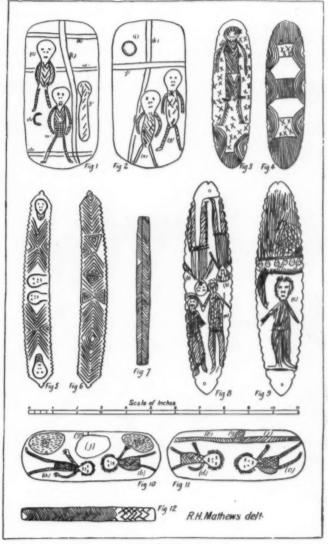
THE POSTAL SERVICE OF AUSTRALIAN ABORIGINES.

Mr. R. H. Mathews, who has exceptional opportunities of studying the customs of the aborigines of Australia, has lately described a number of messagesticks or stick-letters, used as a means of conveying information from one tribe to another. These sticks, a few of which are shown in the accompanying reproduction of Mr. Mathews's drawing in the "American Anthropologist," are highly interesting, as illustrating an attempt by a primitive and uncultivated people to develop some method of communicating their thoughts to persons at another place by means of symbols.

It would take up too much space to describe in detail the significations of the various markings upon the talking

the various markings upon the talking-sticks here illustrated; the general meaning of a few may, however, be pointed out. The two sides of the stick represented in Nos. I and 2 contain a message from Nanee, a head-man of one tribe, to Belay, one of the head-men of another tribe, appointing a meeting for the purpose of holding a corroboree. Nanee (a) sent the message from the river (b) by the messenger (c), vià the rivers (d), (e), and (f), to Belay (g); the stick was dispatched at new moon (h), and Belay and his tribe are expected to be at the river (f)

at full moon (i). The ground where the two tribes are to hold a big corroboree is indicated by (j). The messenger is shown standing by Belay, the receiver of the message, to indicate that he will remain with the latter and his tribe until they are ready to start for the place of meeting. Nos. 5 and 6 represent a stick used to convey a similar message from two brothers (repre-



AUSTRALIAN MESSAGE-STICKS.

sented by the two heads in the middle of the stick) of one tribe, to two brothers of another tribe. Nos. 8 and 9 signify that a head-man (a) with his wife (represented by the figure alongside) and two other blacks (b) (b) wish to meet the recipient (c) of the message, and desire that he will bring the blacks of his own tribe with him. Nos. 10 and 11 request that the recipient of the message-stick will muster his tribe for a big corroboree, and show the tracks to be followed to the ground where the meeting will take place.

Mr. Mathews is of the opinion that, generally

speaking, these stick-letters are only supplementary to verbal messages, the pictures and marks upon them serving to assist the memory of the messenger, and also to confirm the genuineness of the messages. The bearer of a message-stick is never molested, even when he has to pass through the districts of tribes unfriendly to his own.

THE MOST WONDERFUL LAKE IN THE WORLD.

One of the greatest scenic wonders of the United States, as well as one of the most impressive natural formations in the world, is Crater Lake, Oregon. The lake is hidden away in the summit of the Cascade

BIRD'S-EYE VIEW OF CRATER LAKE.

Range, in Southern Oregon, a few miles north of the Californian boundary, and being also several days' journey from a railroad, comparatively few people have visited it since it became known to white men in 1853. An elaborate memoir lately issued by the Mazamasan organisation existing for the exploration of the Pacific North-West-will, however, assist in making the wonders of the lake more widely known. The views here given of the lake are from this memoir of

mountaineering. The first-a picture of a relief model-shows the general contour of the lake, which is seen to be roughly circular in form, the average diameter being about six miles. The second illustration is a view of the south-western shore of the lake.

The remarkable fact about the lake is that the surface of the water is more than six thousand feet above sea-level. A rim of rock, varying in height from five hundred to two thousand feet, completely encircles the lake, and affords no outlet for the water. The water is thus contained in a tremendous pit, which is nearly four thousand feet deep, and so extends from the crest of the Cascade Range down halfway to the

sea-level. The outer slope of the encircling rim is gentle, but the inner side is almost perpendicular, the result being that the placid indigo-blue waters come into view suddenly at the foot of a precipice. "No words," says a visitor, "can express the emotions one feels at the first moment of discovery of the scene, so wonderfully combining the awful, the sublime, the mysterious, and the beautiful. Strong men have burst into tears at the first view; brave men coming here alone have confessed that they fled away panic-stricken from the place, as fast as they could run."

indeed, lakes without inlets or outlets seldom contain fishes, for fishes never appear de novo in any lake or stream; if they appear at all, it is because they can get there from some other lake or stream, or have been artificially introduced.

The lake is doubtless of volcanic origin. During the glacial period the mountain upon which the lake occurs was an active volcano. It is believed that after the final eruption the molten material of the interior withdrew, with the result that the summit of the mountain caved in and sank away, giving rise to the present great basin-like formation. The precipitation of rain and snow into this pit being greater than the loss of

moisture by evaporation, the conditions were favourable for water accumulation, and Crater Lake came into existence.

THE VITALITY OF FROZEN SEEDS.

A number of investigators have subjected seeds to various kinds of rigorous treatment to discover whether the germinative power is thereby affected. The late Dr. Romanes kept seeds or various plants in a vacuum

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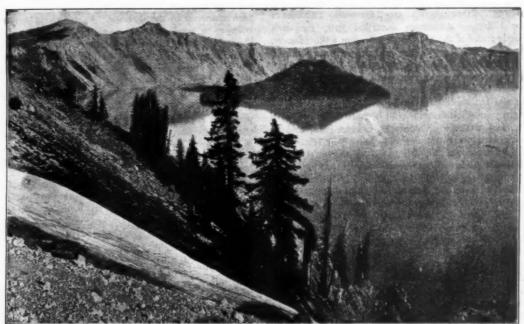
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for three months, and then transferred them to tubes containing different gases for twelve months, but he found that the seeds afterwards germinated just as well as if they had not been exposed to these influences. In fact, seeds sealed up for so long a period as sixteen years, in tubes containing certain gases, have been found to retain their vitality, and to be capable of developing into plants when removed from the tubes. The latest research on the power of seeds to remain alive under very unnatural conditions is by Mr. Horace Brown and Mr. F. Escombe. A considerable variety of seeds were procured, and each kind was divided into two portions, one of which was enclosed in a thin glass tube. The tubes containing these seeds were then kept for nearly five days at a temperature of more than three hundred degrees below zero, produced by the slow evaporation of liquid air. After this severe refrigeration, they were slowly thawed, and

which eagerly unite with one another under ordinary conditions remain perfectly passive to each other's attractions. One of the most remarkable instances of the suspension of powerful chemical affinities at very low temperatures is afforded by fluorine, recently investigated by Professors Moissan and Dewar. Until a few years ago, fluorine had resisted all attempts to isolate it from its compounds. It could not be obtained free, for no sooner was it forced out of combination with one substance than it entered into an alliance with something else. Fluorine approaches, indeed, to the mythical alkahest or universal solvent of the alchemist, inasmuch as it corrodes and dissolves almost every substance, the hardest glass easily succumbing to its attacks. It therefore became an interesting question to decide whether this element, which has the most powerful chemical activity of all the elements, would be rendered passive when cooled to the tem-



SOUTH-WESTERN SHORE OF CRATER LAKE.

it was found that their germinative power did not differ from that of the seeds which had been kept in the ordinary state, the resulting plants being equally healthy in the two cases. It would be interesting to know whether the larvæ of Arctic insects are proof against cold of such severity.

THE DEATH OF CHEMICAL ACTIVITY.

The influence of very low temperatures upon the chemical activities of various substances has formed an important part of recent research. It is now well known that Professor Dewar has been able to convert air into a sky-blue liquid by means of compression and intense cold. The temperature at which the change into a liquid takes place is more than three hundred degrees below zero, or 340 degrees of frost At this great cold it is found that chemical substances

perature of liquid air. Experiments have answered the inquiry in the affirmative. When condensed and cooled into a liquid-and the mere fact that fluorine has now been liquefied is a noteworthy achievement -the element was found to be far more discriminating in its affections than under ordinary conditions. Substances which eagerly combine with fluorine as usually procured, bursting into flame when placed in the gas, could be put into the refrigerated element without any effect. The only element for which fluorine had any affinity left was hydrogen. The experiments, when considered in connection with others of a similar kind, distinctly show that chemical activities are greatly reduced by intense cold, and they give support to the view that at the absolute zero of temperature-nearly five hundred degrees below the point at which water freezes-all matter would be incapable of chemical changes, and the motions of molecules would cease.

Over-dea Rotes.

The Scotch crofter settlements at Scotch Crofters Killarney and Saltcoats, Manitoba, are not in a prosperous condition. The first of them was established eight years ago, when thirty families from the Western Highlands were deported to Manitoba at the expense of the Government. A year later fifty more crofter families were settled at Saltcoats. In both cases the Government paid the travelling expenses of the immigrants, provided them with food and shelter at their new homes, and established them there as small farmers. The cost of the Killarney settlement averaged £160 for each family; that of the Saltcoats settlement £150 a family. For four and a half years no payment was required from the settlers by the Colonisation Board. It had been agreed, however, that at the end of that time the settlers should begin to pay their indebtedness at the rate of ten shillings a week, and that at the end of eight years their farms should become their own. So far, few of the instalments have been paid, and at both places the settlers seem hopelessly in debt. The failure has not occasioned much surprise in Canada. The newspapers of the Dominion insist that the settlement scheme, to quote the "Montreal Witness," was "charged with the elements of failure," and that it was too much to expect to make successful settlers out of people, many of whom were in middle life, and who had no conception of arable farming. Killarney and Saltcoats have their lessons for other than Scotch crofters, as is obvious to anyone who has travelled much in Canada or in the Western States of America. The lot of the farmer in these new communities is hard, and just now unpromising, and no man ought to transplant his family from England to these new countries until he, or a member of his family on whose word and judgment he can implicitly rely, has been on the ground and thoroughly ascertained all the conditions of life. In many of these far western settlements there is little or no money, except what the settlers take with them or have sent to them. Trade is generally by barter. It costs money, of course, to send some one ahead on what the Canadians or Americans would describe as a prospecting trip. The investment, however, is a good one, and should be made by any family which is contemplating transplanting itself beyond the Atlantic with a view to making a living at farming.

The School of Classical Studies in Rome.

A young but promising institution of the Eternal City is the American Classical School, the object of which is to promote the study of Latin literature, as relating to customs and institutions; Latin epigraphy and palæography; the topography and antiquities of Rome, the archæology of ancient Italy; early Christian and

mediæval art. The full school year is of ten months, and the session for stated instruction is from October 15 to June 1. During this period members of the school ordinarily reside in Rome, but a member may obtain leave for a limited period to pursue investigations elsewhere in Italy, or to travel and study in Greece, under the supervision of the director of the American School of Classical Studies in Athens. During the remainder of the school year every regular member is required to pursue his studies in Italy or Greece, on a plan approved by the director. Bachelors of Arts of colleges in good standing may become members of the school on submitting satisfactory proof that their proficiency is such as to enable them to pursue advanced courses at the school. Holders of fellowships, and members of the school who aspire to a certificate, must follow some definite subject of study or research in the field above mentioned, and must present a paper embodying the results of some part of their year's work. Americans travelling or residing in Italy may, at the discretion of the director, be admitted to the privileges of the school. The school has in its award three fellowships, two of \$600 each, and one of \$500. During its first year, the school was directed by Professor Hale, of the University of Chicago, and during the second session Professor Minton Warren, of Johns Hopkins University, has had charge.

Some curious statistics furnished by The Price of Grain and the the Prussian Statistical Department are Death Rate, worthy of serious attention. In Prussia the death rate, which was 29.5 per thousand in 1816, had sunk to 24.2 in 1895—this in a period of eighty years. If periods of ten years are taken-i.e. 1826, 1836, 1846, and so on-the reduction in the rate is regular and continuous; but if the figures for single years are examined, it is a curious fact that in those years during which the prices of bread stuff were highest -viz. 1840, 1846, 1856, 1863, 1873, and 1874—the death rates were considerably higher than in any year of the particular decade to which they belong. Is this an argument against the imposition of a tax on imported grain from abroad?

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Fence Seventyfive Miles
Long. The longest fence in the world is
probably that which has been constructed by the Erie Cattle Company
along the Mexican border. It is seventy-five miles in
length, and separates exactly for its entire distance
the two republics of North America. The fence was
built to keep the cattle from running across the border
and falling easy prey to the Mexican cow punchers.
Although it cost a great deal of money, it is estimated
that cattle enough will be saved in one year to more
than pay for it.

It is interesting to note how the actions American of one country react on another. For Historical Association. more than twenty-five years past a Royal Commission has been at work in England unearthing and publishing historical manuscripts. The finds of the Commission have been unexpectedly numerous and of great national value, and are being embodied in an ever-increasing collection of books, which is already a library in itself. The work has been followed with much interest in the United States, and its success and usefulness has led to the appointment of a similar commission in that country. work is in the hands of the American Historical Association, which, with the help of the Federal Government, intends to carry it out on lines similar to those on which the English Commission has been so long working. As American history goes back at the farthest only to the close of the fifteenth century, the finds cannot be expected to equal in historic interest those unearthed by the English Commission.

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Floating Business Blocks.

A Washington man is fitting up a schooner for the purpose of making it a floating business block at Skaguay and Dawson City next season. It will be steam-heated throughout. In the upper compartments rooms have already been leased for a photograph gallery, drug store, barber shop, butcher shop, bar-room, cigar and tobacco stand, physician's office, and bakery. Should the population leave Skaguay the hotel's proprietor will hoist sail and move to some other locality.

" It will be observed that the acreage Grass Lands of Australia and of land under sown grasses was nearly New Zealand. nine times as great in New Zealand as in the whole of Australia and Tasmania. compared in size with the colonies of Australia, New Zealand is not large-about one-thirtieth of their total area-but in respect of grazing capabilities the relative importance of this country is much greater. Australia is generally unsuitable, owing to conditions of climate, for the growth of English grasses; and the amount of feed produced by the natural grasses throughout the year is very much less per acre than is obtained from the sown grass lands in New Zealand; indeed, it may be said that the average productiveness of grass land is about nine times as great here as in Australia, or that land in this colony covered with English grasses may be considered equal, for grazing purposes, to an area of Australian land about nine times as great."-New Zealand Official Year-Book.

Gold-Mining in New Zealand is a growing industry, there being employed in the business nearly 15,000 last year, an increase of 1,623 over the previous year. Yet the difficulty of procuring gold is greater than formerly, when the mining was chiefly alluvial. The increase is mainly due to the "cyanide process," which is the most noteworthy improvement as yet introduced into New Zealand in the treatment of gold and silver bearing ores. It is particularly suitable where the gold is found in the ore in fine particles; whereas, if the gold be at all coarse, cyanide will do no more

than cleanse and brighten its surface and render it fitter for amalgamation. The process appears simple. The ore is first dry-crushed, and the dust passed through a screen. The pulverised ore is then emptied into a vat, and covered with the cyanide solution. The gold in the ore is dissolved by the cyanide, and, in order to separate the two, the liquor is leached off and run into a trough containing zinc turnings, where the action of the zinc precipitates the gold in a fine powder. The tailings from the leaching-vats are run over tables covered with copper plates coated with quicksilver, and any particles of gold remaining in the ore are by this means arrested on the plates. It was at one time thought that dry-crushing would be a very expensive mode of reducing the ore, but the White Company have proved the contrary. The cost of drying and crushing ready for the leaching process is under six shillings a ton, and more gold is obtained in this way than is yielded by wet-crushing. It is found that in the latter process much of the precious metal is carried off with the water, and does not remain in the tailings.

One sensation after another comes Art Ideas in Kansas City from Kansas City, and now a new sur-Schools. prise arises, this time from the principal of the new Manual Training High School. Professor Gilbert Morrison took occasion to make some remarks after hearing a paper on Michael Angelo, and a more daring iconoclast has not yet appeared on the stage of art criticism. He said: "I have studied art and I have studied science, and I have visited the great art galleries of the Old World, but I have never been able to understand why there is so much said about these ancient sculptures and paintings. When I look at pictures and sculptures like these (reproductions in the room as an aid to the lecturer) I only feel sorry for the ancients. How people, students of art, are enraptured and carried away by such things is beyond my comprehension. For my own part, I am much more impressed by a trip through a cemetery, where I see the work of modern artists on some of the fine tombstones, at \$25 a week, than by the triumphs, so called, of the ancients. Look at those pictures there, and then at the frescoes on the ceiling of this room. Some would say those frescoes were copied, but I say that the artist did fine work on them, and they show talent and originality. If any eleven-year-old boy in Kansas City could make a plaster-of-Paris bust no better than that thing (pointing to a Michael-Angelo bust) he would be considered no good on earth, and be thought by competent critics to have no possible show of being worth \$5 a week!"

Last year there was published in the "Leisure Hour" a sketch of the new American war navy, as it has been developed since 1885. With the growth of this war fleet there has grown up a movement in the United States for the upbuilding of an American mercantile navy. In the first half of this century the United States had a large share in the carrying trade of the world. As regards shipping, America then stood next to Great Britain. Since the

sixties, and especially since so much of the world's trade has been transported in steamers, America has lost this position, and to-day, all told, there are not more than half a score of first-class modern ocean steamers flying the American flag. The men who are interesting themselves in the present movement for the new mercantile navy are strongly convinced that the United States Government ought to help liberally and vigorously in resuscitating this branch of American industrial enterprise. They point to the fact that for nearly forty years the Government has aided manufacturers by high protective tariffs, and they urge that the time has come when something similar must be done for American shipping. When the Dingley Tariff Act was before Congress, a senator, who is greatly interested in the new shipping movement, sought to impose an extra 10 per cent. duty on goods brought in other than American ships. nearly succeeded in achieving this end, and he has declared that he will succeed completely in the 1897-98 session of Congress. This method is one of several now being advocated for upbuilding the American mercantile fleet. Another method suggested is that Congress should vote bounties to American ships; that it should pay liberal subsidies to them for carrying the mails, and also large subsidies for the use of merchant steamers as reserve and auxiliary vessels in the American war fleet. These three suggestions find more favour than that for discriminating duties imposed on goods carried in non-American ships, and they are continually receiving increasing popular support. Nowadays, however, money earns little more in the United States than in England; and as the large capitalists of America are continually being forced into new enterprises, some of them are almost certain before many years are over to turn their attention to shipping. The largest individual capitalist in the United States, the man who is the chief factor in the mammoth Oil Trust, has already done so, and is today the principal owner of the one line of modern ocean steamers flying the American flag, and also of the best equipped fleet of steamers navigating the great lakes.

A few years ago it would have seemed Vacation Schools in odd to choose the close of summer for a review of educational progress. But the summer schools have changed all that. Nowadays much of the best work in education is done in summer. Moreover, a new kind of summer school, very interesting in many ways, has lately come into notice. In the summer of 1894, The New York Association for Improving the Condition of the Poor began on a large scale the experiment of vacation schools for the children of the tenements. Education was not the sole purpose of the enterprise, which was, in fact, closely akin to fresh-air funds and other schemes for brightening the lives of the boys and girls crowded in the narrow streets and stifling houses of the poorer quarters of the city. The Department of Schools and Education granted the use of three cool, roomy schoolhouses, and the managers undertook the task of coaxing the children into them. Books were discarded. The children were invited to come and play. Gradually the play was made work, but work of such a sort as to keep the pupils interested and pleased. All

the devices of the kindergarten were employed, There were singing, dancing, and gymnastics. The children were taught to play at sewing, at carpentering, at drawing and clay-modelling. Some of them learned something useful; and all were comfortably housed during the school hours, and kept off the hot streets and away from vicious associations. There has been no trouble about getting the children to come since they have found out what the vacation schools are like. The average daily attendance during the first summer was nearly one thousand. The second summer it was more than three times as great. During the session last summer eleven schoolhouses were used, and the average attendance during the first week was more than six thousand. The cost per day for each child was about eleven cents and a half in 1894; in 1896, by better management, it was reduced to less than five cents. The officers of the association maintain that the vacation schools are no longer an experiment, and accordingly they ask the city to make the system a part of its educational work. cities have done something in the same direction, but nowhere else has the plan been worked out so fully as in New York. - Youth's Companion.

The latest application of artificial cold to the preservation of the most perishable of human food, rendering possible its conveyance from one country to another without deterioration, appears to have been successfully accomplished in Denmark. At a little more than a hundred miles from Copenhagen, in the heart of a grazing country, a Danish engineer, named Casse, has set up two milkrefrigerating factories. From this place the milk is sent to Copenhagen in blocks. Those who receive it have only to thaw it, and, chemically speaking, they have it as fresh as when it was carried in the pail to the refrigerator. But this solid milk travels much farther than Copenhagen. Some of it has been sent to Paris, where, although it arrived six days after it had left the cow, it was shown by analysis to be fresh milk of excellent quality. These facts were lately brought before the notice of the French National Society of Agriculture as a new departure in applied science that might in course of time become formidable to the dairy farmers who supply Paris, unless the Legislature stepped in to protect them from foreign milk. But there is another way of looking at the invention. Might it not be employed in every country to assure a supply of pure and wholesome milk to large centres of population? In Paris, by far the largest quantity of milk used by people whose means are small is furnished by stalled cows. It is well known that these animals, whose nature is so thwarted to serve the needs of man, are particularly liable to disease, especially to tuberculosis. It is true that the general practice of the French is to heat milk before using it, so that the danger indicated is in their case really very slight; but it can hardly be questioned that the milk of cattle fed on natural pasturage and in comparative liberty must be far richer in nutritive properties than that of the poor beasts imprisoned in city stalls. It is stated that the expense of the refrigerating treatment does not exceed in Denmark three-quarters of a centime per litre.

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Varieties.

The history of Korea has long been Mrs. Bishop's Travels in known to the people of England, and in Korea. the book of Mr. Ross, the first Christian Missionary resident there, a long account is given of the revolutions and dynasties of olden time. These have for us as little interest as the story of Irish faction-fights, or the ancient battles of the Choughs and the Crows. But that book of Mr. Ross excited the attention of Isabella Bird, and she has long desired to visit a place which has recently become famous. It is a peninsula little smaller than Great Britain, almost 600 miles long by 135 miles broad. Less of it is known to us than we know of China or Japan. The contests and designs of European nations have recently brought Korea into notice, and Mrs. Bishop has made four visits to Korea, the first in 1894 and the last ending in March 1897. She has travelled over most of the country, with the same love of adventure and readiness of observation which made her name as Isabella Bird famous; and in her maturer years she has the same charm of style and clearness of expression that made her former book popular. In the two volumes now published by John Murray, with maps and illustrations, we have an excellent account of the Korean peninsula, from Seoul, the capital, with its slums of struggling poverty and its palaces of barbaric splendour, to the more rugged and rural valleys of the west. The characteristics of the people and the resources of the country are graphically described. The climate is said by Mrs. Bishop to be delightful at all seasons. It is a country with a great future before it. Allegiance to China is at an end. The present position of the king and the kingdom of Korea is between Japan and Russia, both of which empires have representatives at the court of Seoul, and are striving for the supremacy. Bishop's book will help to make the reader understand newspaper reports about this region of the Far East.

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The death of Mrs. Cowden Clarke, in Mrs. Cowden January 1898, removed to the majority one Clara Novello. who was, on various accounts, worthy of remembrance. Her most enduring work was the "Concordance to Shakespeare," in preparing which she was the helper of her husband and the enthusiastic continuer of his labour and fame. She lived to be eighty-eight years of age, and till near her end retained all her natural gifts. Only two or three years ago she contributed to the "Girl's Own Paper" articles full of most interesting recollections of her early life. She was a Novello, a family long notable for genius and enterprise in the musical profession. One of her younger sisters, Clara Novello, who has long retired from public life, and still lives as an Italian baroness, was the greatest soprano singer in

the old days of the Sacred Harmonic Society, when the voice of Miss Dolby first was heard as contralto. There are aged people who still remember these times, and some who witnessed the triumphal appearance of Clara Novello at the opening of the Crystal Palace at Sydenham, when the air of the Queen's Anthem was sung by her, filling the vast space as with the notes of a silver trumpet, and cheered to the echo by Prince Albert and the other royal and notable personages who heard her. Sir George Grove was there that day, and will testify that never did the human voice excel what was then heard from Clara Novello.

The same day that announced the Alice's Adventures in death of Mrs. Cowden Clarke told of the departure of "Lewis Carroll," the founder of the new school of modern literature for the young. Who would have believed that Lewis Carroll was the Rev. C. L. Dodgson, a mathematical teacher and tutor at Oxford, and that he invented "Alice in Wonderland" really for the delectation and comfort of a sick child, a relative of a sister in Surrey? It is said that the Queen asked once that all his works should be sent to her. What was Her Majesty's surprise when there came a vast pile of mathematical books-on the differential calculus and other subjects of learned and mathematical sorts-as well as Fairy and Wonderland stories!

The story of Mr. Dodgson's personal trials and disappointments at Oxford is well known, though it was not for Alice Liddell that he invented "Alice in Wonderland," but for the sick child at Guildford. At all events, it is by these playful books that he will be counted great, and "on fame's eternal bede-roll worthy to be filed." He was interred at Guildford on January 19, 1898.

That Lady Warwick should agree on Joseph Arch, with preface by all points with Joseph Arch is not to be the Countess of expected, but it is a notable sign of the Warwick. times that a clever and accomplished woman, devoted to the welfare of the people, appreciates and rightly estimates the merits of this representative of the agricultural classes. It is a triumph of national and imperial opinion over political and party feeling. "Hodge" has his part now in the national system of old England, and it is pleasant to see this acknowledged and publicly avowed by an aristocrat so celebrated as Lady Brook, now the Countess of Warwick. Joseph Arch was once only a labourer and a hedge-cutter, but he was also, in early years, a "Primitive Methodist" preacher, and the knowledge of the Bible, with his natural genius and industry, raised him to be the champion and the pride of the agricultural classes. In his own camp he was sometimes abused, but his independent and unselfish conduct has now been attested as worthy of honour apart from party politics or personal ambition.

In the new life of Mr. Spurgeon by C. H. Spurgeon's his widow there is an amusing example Humour. of humorous illustration of truth, which to the last characterised the great preacher. occurred in his early Waterbeach ministry, and is thus related in his own words (for the book of Mrs. Spurgeon is well called an autobiography of her husband). "One day, a gentleman, who was then Mayor of Cambridge, and who had more than once tried to correct my youthful mistakes, asked me if I really had told my congregation that, if a thief got into Heaven, he would begin picking the angels' pockets. 'Yes, sir,' I replied, 'I told them that if it were possible for an ungodly man to go to Heaven without having his nature changed he would be none the better for being there; and then, by way of illustration, I said that were a thief to get in among the glorified he would remain a thief still, and he would go round the place picking the angels' pockets!' 'But, my dear young friend,' asked Mr. Brimley, very seriously, 'don't you know that the angels haven't any pockets?' 'No, sir,' I replied with equal gravity, 'I did not know that; but I am glad to be assured of the fact from a gentleman who does know. I will take care to put it all right the first opportunity I get.' The following Monday morning I walked into Mr. Brimley's shop, and said to him, 'I set that matter right yesterday, sir.' 'What matter?' he inquired. 'Why, about the angels' pockets!' 'What did you say?' in a tone almost of despair at what he might hear next. 'Oh, sir, I just told the people I was sorry to say that I had made a mistake the last time I preached to them; but that I had met a gentleman -the Mayor of Cambridge-who had assured me that the angels had no pockets, so I must correct what I had said, as I did not want anybody to go away with a false notion about Heaven. I would therefore say that if a thief got among the angels without having his nature changed he would try to steal the feathers out of their wings !' 'Surely you did not say that !' said Mr. Brimley. 'I did though,' I replied. 'Then,' he exclaimed, 'I'll never try to set you right again!' which was just exactly what I wanted him to say."-C. H. Spurgeon's "Autobiography."

Original
Edition of
Keble's
'Christian
Year."

To his series of facsimile reprints of famous books, Mr. Elliot Stock has made this season the welcome addition of Keble's "Christian Year." There have been disputes whether more copies have

been circulated of Thomas à Kempis' "Imitation of Christ," or of John Bunyan's "Pilgrim's Progress." But there is no question that of all books of the nineteenth century, excluding bibles, prayer-books, and hymn-books, the "Christian Year" of Keble is the first. The editio princeps was published in 1827 with a preface by Dr. Talbot, then Warden of Keble College, Oxford, now Bishop of Rochester. It appeared in two thin foolscap octavo volumes, in plain

old-fashioned form. In the newly issued reprint the venerable bishop supplies a list of all the alterations made by Keble in successive editions of the work. These are not very numerous or of great importance. When the "Christian Year" first appeared, the sharp division which has divided the Church since the publication of the Oxford Tracts and the Tractarian movement did not exist. The object of Keble was to show the beauties and declare the teaching of the Anglican Church, as expressed in the Liturgy or Book of Common Prayer in times when it was regarded as the standard of Protestant faith and the authorised formula of the Anglican This reprint of the poems as they Communion. first appeared is a welcome addition to our shelves. There is only one facsimile of greater cost as to outer value, the edition which was suppressed in consequence of a legal interdict obtained by a relative of Mr. Keble. A few copies of this interdicted and suppressed edition had fallen into the hands of reviewers and editors, and fortunate are the possessors of copies of that work, now of rarest occurrence.

The Sun rises at Greenwich on the 1st Astronomical Notes for day of this month at 6h. 48m. in the morning, and sets at 5h. 38m. in the evening; on the 11th he rises at 6h. 26m. and sets at 5h. 55m.; and on the 21st he rises at 6h. 3m. and sets at 6h. 12m. He crosses the equator on the afternoon of the 20th, which is therefore the day of the equinox. The Moon becomes Full at 9h. 29m. on the morning of the 8th; enters her Last Quarter at 7h. 48m. on that of the 15th; becomes New at 8h. 37m. on that of the 22nd; and enters her First Quarter at 7h. 40m. on that of the 30th. She will be in apogee or farthest from the earth about 5 o'clock on the morning of the 1st; in perigee or nearest us about 3 o'clock on the afternoon of the 14th; and in apogee again about 2 o'clock on the morning of the 20th. No eclipses are due this month; the most remarkable occultations are those of Antares (the bright red star in Scorpio) by the Moon about 3 o'clock on the morning of the 14th, and of Delta Geminorum about midnight on the 30th. The planet Mercury will be at superior conjunction with the Sun on the 16th, but may be visible just before setting about an hour after the Sun at the end of the month. Venus is now an evening star, but sets not long after sunset in the constellation Pisces; she will be in conjunction with Mercury on the afternoon of the 26th. Mars rises about 6 o'clock in the morning at the beginning of the month, and somewhat earlier as it advances, so that he will be visible during only a short time before sunrise, low in the heavens, in the constellation Aquarius. Jupiter will be in opposition to the Sun on the 25th, and is a brilliant object throughout the night, rising even at the beginning of the month soon after the sky becomes dark; he will be in conjunction with the Moon (when a little past the full) on the 9th. Saturn is now on the meridian or due south about 6 o'clock in the morning; he is nearly stationary in Scorpio, and will be near the Moon on the 14th of this month.

W. T. LYNN.

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The Fireside Club.

THREE PRIZE COMPETITIONS.

SCOTT ACROSTIC.

A prize of FIVE SHILLINGS is offered for the best short answer in rhyme.

- I. "Sweet on thy silver tide The glaring bale-fires blaze no more; No longer steel-clad warriors ride Along thy wild and willowed shore; Where'er thou wind'st by dale or hill All, all is peaceful, all is still."
- 2. "Such tales had fishers told And said they might his shape behold, And hear his anvil sound; A deaden'd clang, a huge dim form, Seen but and heard when gathering storm And night are closing round."
- 3. "Safe amid thy mountain court Thou sit'st, like at her sport, And liberal, unconfined, and free, Flinging thy white arms to the sea."
- 4. "And, warrior, I could tell to thee The words that cleft hills in three And bridled the Tweed with a curb of stone. But to speak them were a deadly sin, And for having but thought them my heart within

A treble penance must be done."

GT mann

To think what woe mischance may bring, And how these merry bells may ring The death-dirge of our gallant king; Or with the alarum call The burghers forth to watch and ward, 'Gainst Southern sack and fires to guard leaguered wall."

WHOLE.

"With listless look across along the plain, I see silver current glide, And coldly mark the holy fane
Of Melrose rise in ruined pride;
The quiet lake, the balmy air,
The hill, the stream, the tower, the tree,
Are they still such as once they were,
Or is the dreary change in me?"

SHAKESPEARIAN ACROSTIC.

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A prize of TWO GUINEAS is offered to the solver of this series. Should more than one competitor succeed, a sixth acrostic will be given to work off the tie. Winners of last year debarred. The solutions will not appear until April, so that answers to the series, which has appeared month by month since November, may be sent in together by the 20th of this month.

FIFTH OF FIVE.

- To prove your claim
 To bear this name,
 Change coat and custom, scorn your dinner,
 Blush for your face,
 Despise your race,
 And pride yourself on growing thinner.
- A flaming brand (The looked-for sight) In maiden's hand Lit thy marriage-night.
- England! fear trouble! (was a prophet's cry),
 When these unveil their treasures to the sky.
- 4. With this the reptile schemes to catch his prey. Harden your hearts, or look another way!
- 5. So she is this! (an angry woman cried), Shall I come second and see her a bride?

WHOLE.

Though by a knave dubbed brother to a fool, Owned by tacticians thy politic rule.

Find the five words referred to above, and the whole spelt by their initials. Give Act and Scene of each reference.

ANSWERS FOR JANUARY.

I. GEOGRAPHICAL ACROSTIC (P. 202). FRANCE

(PRIZE ANSWER.)

FROISSART charms in chivalrous pages.
REVOLUTION ravening rages.
AUSTERLITZ is fought and won,
As victor hailed NAPOLEON.
Less happy he than CHARLEMAGNE,
ELBA must his pride restrain.

Over thy annals as we glance We find these names, sweet en'my FRANCE.

By A. A. MILNE, The Manse Tyrie, Fraserburgh, to whom is awarded a prize of FIVE SHILLINGS.

II. TEA-TABLE TOPICS.—A prize of FIVE SHIL-LINGS is awarded to C. M. BATTERSBY, Cromlyn, Rathowen, Ireland, for this month.

RULES.—I. Write very clearly, on one side; fasten all sheets together, write name and address on each competition. Write FIRESIDE CLUB outside all letters.

II. Editor's decisions are final, and correspondence impossible.

All answers must be received by the 20th of this month,

TEA-TABLE TOPICS.

All readers are invited to contribute short paragraphs under this heading. These must be original, signed with pen-name or initials. Only the best will be printed, and a prize of FIVE SHILLINGS will be awarded to the first each month.

Not Born to be Drowned.

For what fate, one wonders, was the hero of the following absolutely true adventure reserved?

"Ah, Miss," said Mrs. Murphy to me one day, "if you'd been here when Pat kilt himself a year ago you'd have known what to do."

"What happened to the boy?"

"Well, you see it was this way, Miss. I'd just taken the big iron pot, full of a boiling of clothes, off the fire, and what must he do but fall into it, head foremost. I was fairly out of my mind for fear the two beautiful eyes 'd be burnt out of him, so I catches him by the legs, and souses him in the drain outside. Oh, it's green it was wid slime! Then Mrs. Fleming across the road calls to me, 'Is it drowning the child ye are?' and, sure enough, he began to choke.

"Well, I ran in wid him, and what should I do but put him down in the churnful of buttermilk (people says milk is good for scalds). He was near been smothered entirely, then, only for Mrs. Fleming. She was after me, and pulled him out of me hands, and sez she, 'Ye know nothin' at all, at all; it's ink ye want for a burn.' So she upset the big bottle the children brought from school over his head. Shure it was a quare sight, out and out! I never took off me [clothes] for seven days and nights watching him, and there he is now, as fine a boy as you'd see in a day's walk, praise be to God!"

Tea Again. Dr. James wrote in 1746 against the use of tea in the following strong terms:

"As Hippocrates spared no pains to remove and root out the Athenian plague, so I have used the utmost endeavour to destroy the raging epidemical madness of importing tea into Europe from China."—META.

What has become of the happy evenings common a generation ago, when, after dinner, the family assembled together, the experiences of the day were recounted and quiet games indulged in, while music or reading aloud filled the remainder of the time? Owing either to the present fashion of late dinner, which renders it unnecessary to come home until the evening is far advanced, or to more numerous outside engagements, these pleasant gatherings are chiefly things of the past; fathers seldom see their younger children, and the happy intimacy of brother and sister is little known. It is to be hoped that our homes are not to degenerate into hotels, where we merely eat and sleep, while our pleasures are sought outside.—BETA.

Children. One of the most curious characteristics of the present age is its attitude towards children. Time was, when childhood was tolerated merely; when it was considered only in relation to a more mature estate, and a child was esteemed not

so much for his natural childish qualities, as for the precocity and promise of manhood he exhibited. Now, however, we confess our admiration for those very features of the young which our ancestors discouraged. In this most unromantic of eras, strangely enough, we have learnt to appreciate the unconsciousness of childhood, its unconventionality, and quaint outlook upon life. And, what is more, we don't conceal the fact. Observe, for instance, how children are extolled in modern literature. Think of the volumes now devoted to their amusement or study; think, too, of the authors of them-many are writers of no mean consideration. Thus it is consoling to reflect that though this may indeed be the age of motor cars, new women, and other deplorable monstrosities, it is, par excellence, the age of children .- J. C.

Their Natural Differences. It is sometimes thought strange that children of the same parents, reared in the same home, should turn out so differently. But the fact is, no two children are circumstanced alike in any family. There may be fifteen years or more between the eldest and the youngest; consider the difference these years must make in the experience and discretion of the parents. Or they may have begun well, and afterwards become lax and careless.

Frequently the youngest is spoilt. The elder sons and daughters generally domineer, and allow the little ones no choice or opinion. Then again a family may divide into twos and threes, leaving one solitary child out in the cold. Under such a variety of experience it would be a wonder if they all grew up alike.—M.A.G.

A Chess Manual. Handbooks great and small on the subject of chess are of course very numerous, and the enthusiast will probably study more than one with the object of improving his play. The number of players among readers of the Fireside Club seems steadily increasing from month to month, and as more than one has asked for the name of a handy manual, perhaps I may be allowed to recommend from my own experience E. Lasker's "Common Sense about Chess," a small half-crown book in paper covers, being an abridged series of lectures originally delivered to the London Chess Club, full of practical memorable hints.—PAWN.

Chess. In our last number we gave the solution of the January problem. As some of our correspondents seem to wish it, we now give further particulars. Correct solutions to the problem have been received from I. D. Tucker (Ilkley); R. B. Cooke (Gateshead); G. A. D.; Jacob Verrall (Lewes); I. de la Haye (Jersey); J. W. (Watnall); F. R. Pickering (Forest Hill); and William Miller (Cork).

R. B. COOKE.—In reply to your postscript, we think you are mistaken. If able, kindly verify.

SOLUTION OF PROBLEM IN JANUARY NUMBER.

White.—P to K 4; Kt to B 8 (mate), or P takes BP (mate), B to Kt 3 (mate), or B takes B (mate).

Black.—Either P takes en passant, B takes B, QP takes P, BP takes P.

